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Amsu Bodhini Shastra

BY
MAHARSHI BHARADWAJA

CHAPTER I

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श्रीमद्भगवत्सृष्ट्यन्तर्गत सकलवस्तु संशोधनक्रियाप्रबोधक भौतिकादि भौतिकशास्त्रप्रवर्तकानां
वस्तुसंशोधक विद्वन्मणीनामत्यंतोपकाराय, समस्तवस्तु सृष्टि स्थितिलय कारक
शक्तिस्वरूप प्रदर्शनोपयुक्त यंत्र तंत्र द्रावक मणिदर्पणाद्युपकरणप्रदर्शकम्
सूर्यकिरणप्रधानभूतं श्रीमद्भरद्वाजप्रणीतं भौतिकादि भौतिक-
शास्त्रान्तर्गतम्

अंशुबोधिनीशास्त्रम्.

(प्रथमाध्यायः)

बोधानन्द सरस्वतीस्वामिविरचित वृत्तिरूप व्याख्यान सहितम्
कल्याणनगरस्थित पंडित तोमरे सुब्रायशास्त्रिणा लिखितम्

तत्पदपांसुना गो. वेङ्कटाचलशर्मणाकृत आंग्लभाषा टीक्यासहितम्
श्रीमत्स्वयंप्रकाशाश्वदैकरमभूमानन्द परमेश्वर भारतीस्वामिनः आज्ञानुसारेण,

मुंबापुरीवास्तव्य न्यायवादाधिकाराग्रेसर
फंगडुन् के दादाचान्जी, अपिच रमणिकलाळ रतनलाळ मोडीनामक
भगवद्भक्ताग्रेसरैः प्रकटीकृतम्

कल्याणनगरम्

वे. वि. सुन्वय्य अंड सन्स यलेक्ट्रिक मुद्राक्षरशालायाम्
मु द्रा पि त म् .

1931.

PREFACE

The within work Amsu Bodhini by the venerable sage Bharadwaj has been reproduced by Panditji T. Subbaraya Shastri of Bangalore, in the original Sanscrit and a translation thereof has been made in English under his personal directions. This work is not current in the outer world, so far as we have been informed. The process of writing the original Sanscrit has been accomplished in the traditional Yogic manner by the instrumentality of Dhyana, which is unknown in the present times to any but a very few, who have found entrance into the Inner Court. The publication has been made in deference to the wishes of Panditji T. Subbaraya Shastri and his revered Mahatma Guruji. As publishers we make no claim whatsoever in regard to the original or the translation, which we are informed are needed for the enlightenment of the scientific world at large, of the present day. The work bristles with numerous suggestions, many of which might lead to discoveries, by the scientists of the present day. It is for the men of science to estimate the worth of this work, hoary with age. The work which is but a portion only, represents the ideas of ancient scientists of India in the particular directions, and the scientific world will be able to estimate to what height Science had reached in the very ancient times, when the work was penned.

FAREDUN K. DADACHANJI
RAMNIKLAL R. MODY

Medows Street, }
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Introduction.

It is a well-known fact that the ancient land of Bharata Khanda (India) on account of changes of time has come under the domination and influence of the Westerners and has attained a high state of civilization. Marvellous Western Scientific achievements of universal good such as the Steam-engine, Telegraphy, Telephone, Wireless Telegraphy, Photography, Gramophone, Electricity etc., have recently been introduced into India also. The Westerners, however, often assert that the above or similar scientific achievements or literary works treating about them, were never known in India, that all the works of India are no better than Cock and Bull stories and that the Indians are remarkably backward in civilization. With a view to bring home to the people at large the fame of India during the Empires of the monarchs of the Solar, the Lunar and the Agni dynasties long before the advent of the Westerners into India, the glory of the Vedas and Shastras (which are by the Westerners belittled as being fables) and the height of civilization that the Indians had attained by the study of such shastras, we have made an humble attempt to bring to light some of the scientific works of ancient India, which are now not widely current in this land and the first of such works is the present Amsu Bodhini Shastra dealing with the properties of Solar rays and composed by the Revered Maharshi Bharadwaja.

Well, an inquisitive and enthusiastic critic may here contend that the name of this Amsu Bodhini Shastra has never been heard of anywhere, that it has not been mentioned in any works, such as Mīmamsa Shastra, coming under Prasthana Thraya and that, therefore it can never be considered as an original scientific work of ancient India.

II

Such critics should note that the number of Shastras of ancient India is as numerous to count as the number of stars in the heavens and that to attempt to explore and estimate the extensive wilderness of the many sided literature of ancient India, is nothing short of vanity, nay an impossibility. For, the more one knows about them, the more one finds, that there is yet more to be known. To clear away the false belief of those, who consider, that this work is not an ancient production, because of their ignorance of this work, we shall here explain briefly by mathematical calculations the periods of time from the commencement of the Kalpa till its end, when shastras spring up, so that they may have an idea that the number of Shastras which come into existence is so vast, that it is not within the reach of any mortal to know all of them, but that there may be any number of them which they do not and cannot know, whereby their doubt may be cleared.

Calculation of Time.

Time is of two kinds viz., Avachya or unlimited and Vachya or Limited. The unlimited Time is said to be in the form of Nirguna or unmanifest state of Brahman, in philosophical works. On the other hand, Astrology, by means of such works as Surya Siddhanta, declares that the same Unlimited Time getting the state of Limited Time and extending into the form of the Universe according to the Kalpa concerned, will assume the form of Saguna or manifest state of Brahman. Maharshi Parasara in the eleventh aphorism reading as महाकल्पाप्पष्टुत्तरशतम् of the fifth chapter of his Anda Kaustubha Shastra explains the extent of this Limited Time thus: "The Limited Time extends over three hundred and sixty Maha Kalpas, commencing with Parashakti Kalpa and ending with Sadasiva Kalpa. Of these, the present Shweta Varaha Kalpa has been calculated to be the one hundred and forty-eighth Maha Kalpa, according to the mathematics of Valmiki".

The process of creation of each of these Kalpas is alike and that of the present Sweta Varaha Kalpa is briefly this. Prior to the creation of this Kalpa, the Indescribable Paramatman for the sake of propagating the Universe assumed the Form of the Almighty Sankarshana, also known as Avyakta or unmanifest Brahman and by His indescribable power, created water in the order of Mahat and placed His Brilliance in it. It got the shape of a golden globe the inner space of which was full of darkness. The Almighty Sankarshana Himself present within that globe, in the unmanifest state assumed the manifest state by name Aniruddha. The Supreme Being in this state is known in Vedas as Hiranya Garbha, because He exists in that golden globe, making it His habitation, as Aditya because He is the original cause of the Universe, as Surya and Savita because He creates everything by means of His brilliance, or the Shakti of His rays and as Param Jyoti or Super-Luminary, because He illumines everything. The globe of this Hiranya Garbha who is beyond description, is known as Rigveda, His rays as Sama Veda and His body as Yajur Veda.

The Supreme Being who is thus personification of the three Vedas for propagating the Universe, with one-fourth of His indescribable power first created Brahma, imparted to him all powers, gave him all the Vedas and established him in the middle of that Brahmanda, while He himself remained illumining and pervading everything. It is this Brahma, existing in the middle of Brahmanda, whom the Shastras speak of severally as the First Bodied, Chaturmukha or the Four-faced, Prajapati and so on. Brahma then began creating the Universe, in accordance with the Veda gifted to him by the grace of Ishwara. He then thought of establishing in this Universe, the Veda which explains all Dharmas capable of imparting the four attainments--Dharma, Artha, Kama and Moksha to be observed by all people of the four castes, created by him. Calling to him Bharadwaja, who was practising penance in his name, He gave him the Veda of the Sweta Varaha Kalpa which was gifted to him by the Lord

Almighty and said to him, "O Bharadwaja, establish this Veda in the Universe." According to the order of Brahma, Bharadwaja Muni brought the Veda from Brahma Loka to Bhuloka, in this Sweta Varaha Kalpa, a fact which is incorporated in the Veda itself.

Subsequently Bhrigu, Bharadwaja, Kashyapa, Angirasa, Gautama, Parasara, Vyasa and other Maharshis found out the secret of the Veda by the help of the power of their penance and composed original Shastras, expounding the seven essential phases of Religious Life such as caste, sub-caste (sect), Gotra, Sampradaya, Arsheya, Pourusheya and Sadachara, in addition to the Varnas and Ashramas prescribed in the Veda. Later on these Maharshis at due periods of the Maha Kalpa, Avantara Kalpas and the Manvantaras continued to compose Shastras necessary at the times concerned, so that people of all castes, such as Brahmins, might be able to find out their respective religious duties as authorized by the Veda and the Shastras and by observing their Swadharma or own religious duties, get the four attainments of life and eternal bliss. The Shastras thus composed in each Kalpa are endless and so the Shruti has expressed this fact in sentences such as, "अनन्ता वै वेदा." "अनन्तशस्त्रं बहुवेदितव्यम्" and so on. The Shastras coming into existence even in the time of a Manvantara are too numerous to enumerate and so it is impossible for men to study all the Shastras. Pitying this sad condition of the lay people, the Maharshis with a philanthropic view, classified the Shastras, picked up only a few of them, by studying which the subject matter of all Shastras may be clear and codified them in what is known as 'Prasthan Thraya' so that all people might know their respective duties and by observing them strictly would get happiness here and here after. A Prasthan Thraya is therefore a Shastric work which enumerates only the principal Shastras (excluding those of minor importance) current at a period of time concerned. Thus a Prasthan Thraya will be in force for about five thousand human years, at the end of which a fresh one succeeds it. Three lacs,

ninety-one thousand, one hundred and seventy-six such Prasthana Thrayas have come and gone In this Sweta Varaha Kalpa and the one now in force is the 391177th. Maharshi Shuka says in Shastra Nirnayadhikara of his work, Srushti Vilasa that the Prasthana Thraya, now in vogue is of two kinds viz., Brihat Prasthana Thraya and Laghu Prasthana Thraya.

In determining the periods of time when the various Shastric works come into existence, the calculation of time is made under three tables—human, Divine and Brahman. Thus one hundred Brahman years are said to be the duration of one Maha Kalpa. Similarly a Brahman day is considered to be one Avantara Kalpa. A Maha Kalpa therefore consists of $(100 \times 360) = 36000$ Avantara Kalpas. The duration of time of each of this Avantara Kalpa is equally divided among fourteen Manvantaras. The time of a Manu thus extends over a period of seventy-one Divine Yugas. This is further illustrated in the following three tables of Time.

THE HUMAN TABLE OF TIME

The time taken for once winking the eyelids of a human being is known as a Nimisha.

15	Nimishas	make	1	Kashtha
30	Kashthas	„	1	Kala
30	Kalas	„	1	Muhoortha
30	Muhoorthas	„	1	Day
30	Days	„	1	Month
12	Months	„	1	Year

This year is said to be the Savana year, where day is calculated from sunrise to sunrise. There can therefore be no Adhika or extra or additional month in this Savana year.

THE DIVINE (DAIVA) TABLE OF TIME

1	Human year	is equal to	1	Divine Day
360	Divine days	make	1	Divine Year
12000	Divine years	make	1	Divine Yuga.

TABLE OF BRAHMAN TIME .

2000 Divine Yugas make 1 Brahman Day
 360 Brahman days make 1 „ • Year
 100 „ • years make 1 Lifetime of a Brahma.

At the end of 100 such years, a Brahma perishes.

One day of Brahma is equal to one thousand times the four Yugas—Krita (Satya), Treta, Dwapara and Kali. The number of human years making up each of the four Yugas is as follows :—

Yugas		Number of human years
1. Krita Yuga	....	17,28,000
2. Treta Yuga	...	12,96,000
3. Dwapara Yuga	...	8,64,000
4. Kali Yuga	....	4,32,000

The total of the 4 Yugas is 43,20,000 human years.

This duration is equal to one daytime of Brahma while the night time is also of the same duration.

CALCULATION OF TIME OF A MANVANTARA.

Each daytime of Brahma is equal to fourteen Manvantaras. Now that the number of human years is fixed for a Brahman Day, the number of years of a Manvantara or of the entire lifetime of a Brahma can easily be calculated.

In this Sweta Varaha Kalpa six Manvantaras have already passed and the seventh viz., Vaivaswata Manvantara is now going on. In this present Kaliyuga of the Vaivaswata Manvantara, the Prasthanā Thraya or the catalogue of Shastric works containing the quintessence of all literary works, now in force is the 391177th in order. In this Prasthanā Thraya, the present work, Amsu Bodhini Shastra has been mentioned under the head of Artha Shastras. So it is not possible to say that this work is not a Shastra of ancient India.

VII

It has been stated above that there have been millions of Prasthanas Thrayas, each of which is a catalogue of many Shastras. The readers may therefore guess for themselves the number of Shastras which the philanthropic sages give out to the world, at proper periods in the course of a Maha Kalpa. Many of the scientific works mentioned in the Prasthana Thraya now in force have been lost, on account of various reasons.

To revive the Scientific Shastras Mr. Faredun K. Dadachanji, B.A., LL.B., a Parsee by birth and Mr. Ramniklal R. Mody, B.A., LL.B., a Hindu by birth, Solicitors of the Bombay High Court have been for some time past toiling laboriously. In course of time they enquired of me also, if anything could be done for the revival of the ancient Indian Scientific Shastras. In compliance with their enquiry I furnished so them a brief account of some of such Shastras, which I had heard from our Gururji Maharaj.

These Shastras are :—

1. Shakti Tantra, by Maharshi Agastya.

This work treats of the 32 kinds of electricity and of the various wonderful machinery and other appliances which can be invented by its help.

2. Soudaminee Kala. This work deals with 22 wonderful subjects, such as the attraction of likeness and of voice, of all phenomena on the earth and in the heavens.

3. Suddha Vidya Kalapa, by Maharshi Aswalayana.

This Shashtra deals with the following points ; the state of the Universe prior to creation, the cause of its creation and its varieties and the wonders of the creation of Iswara and that of Jeeva. Many other very interesting points are also treated in this work.

4. Brahmanda Sara, by Maharshi Vyasa.

VIII

In this Shastra are mentioned the characteristics of many Brahmandas, their dimensions, the moveable and immoveable phenomena existing in them and the gross and subtle methods of finding them and many other points of practical utility

5. Amsu Bodhini by Maharshi Bhāradawaja

Some of the points dealt with in this Shastra are these—

Clear knowledge of the several solar globes, the differences in their light and rays, the starting points of their rays, the glasses and other apparatus of attracting those rays, the darkness, light, heat, coldness, speed, colour etc., present in the solar rays, the six kinds of changes such as happiness, misery and so on that overtake the beings in creation, day and night; practical application of the forces of solar rays such as transmission of messages to distant places, conversing with and getting sight of people in far off lands and many other wonderful achievements.

There are many other similar works, only the names of some of them are given hereunder.—

6. Anda Kaustubham, by Maharshi Parasara.
7. Koumudi, by Somanatha.
8. Meghotpatti Prakarana, by Angeerasa.
9. Akasha Tantra, by Bharadwaja.
10. Loka Sangraha, by Vivaranacharya.
11. Agatatwa Lahari, by Aswalayana.
12. Prapancha Lahari, by Vasishta.
13. Yantra Sarwaswa, by Bharadwaja.
14. Lohatantra, by Shakatayana.
15. Kheta Sarwaswa, by Jaimini.
16. Karmabdhī Sara, by Apastamba.
17. Dhatu Sarwaswam, by Bodhayana.

18. Righrudayam, by Atri.
19. Namartha Kalpa, by Atri.
20. Vayutatwam, by Shakatayana.
21. Vaishwanara Tantra, by Narada.
22. Dhooma Prakaranam, by Narada.
23. Oshadhi Kalpam by Atri.
24. Karaka Prakarana by Atri.

The names of these Shastras are suggestive of the subject-matter treated in them. These Shastras are full of scientific research and achievements of ancient India, such as Vayu vega or travelling as fast as the wind or mind, flying in the sky, entering into the body of another, and so on which are far beyond the reach of the highly civilized up-to-date Western Scientists.

On learning from me the names of these scientific works of ancient India, the said two pious and god-fearing solicitors of Bombay felt exceedingly delighted and feeling sorry at the same time that these Scientific Shastras have now become almost extinct in India, whereby her civilization is undervalued by the Westerners, they made up their mind to bring these works to light and thereby establish the fair name and fame enjoyed by India and which is still due to her. With this determination they desired me to write and get them these Shastras, so that they would publish them at any cost, to which I said that I would consult my Guruji Maharaj and let them know what he commanded on this point.

In due course I sought the presence of my Guruji Mahara. and informed him all about the desired publication of the Shastras. On hearing it, he remained silent for a while and then spoke to me as follows—"Mr. Faredun K. Dadachanji and Mr. Ramniklal R. Mody are both pious people. They have a meritorious past. They will get all their desires fulfilled by the very idea of getting these Shastras published. They need no other spiritual observances

for their edification and future good. Inform them that they are quite welcome to do this work, in case they undertake this as a piece of divine service. You should write and give them whichever Shastra they desire to publish. By this I am sure this sacred land will be regenerated in every way and the ancient Dharma will again be established in it."

On this I communicated this piece of information to the above two persons, who felt delighted and undertook to publish the Shastras with faith and fervor and in strict obedience to Shri Guruji's wishes. To begin with Amsu Bodhini Shastra, which deals with the properties of Solar rays was selected, since in this Sweta Varaha Kalpa all creation takes place through solar rays. So far the two devotees have been able to get the first chapter of this Shastra printed at Bangalore, with an English version of the same.

The main points dealt with and established, on the authority of the Shruti, in this Chapter are that Soorya or the Sun is proved to be identical with Brahman, that he is the Lord of creation of this Sweta Varaha Kalpa and that creation of the entire Universe takes place by means of the Agni Shoma Shakti of the Brahman.

May the Lord on High shower His choicest gifts on the publishers so that they may bring to light many more Shastras of this type for Universal good.

Bangalore
4th January 1931

Pandit T. SUBRAYA SHASTRI.

Translator's Note

Thorough understanding of Sanskrit, a fair knowledge of the scientific works referred to or quoted in the original and good command of the English language to express the technical points precisely, are some of the essential features in rendering into English a highly developed scientific work, like this *Amsu-Bodhini Shastra*. The following pages will prove the extent of the presence or absence of these merits on the part of the translator, who is not unaware of his drawbacks for this task. He is therefore sincerely of opinion that better justice would have been done to the subject, if it had been undertaken by one to whom knowledge unfolded her ample page rich with the spoils of time.

The English portion of this work is only a commentary and not a translation in the strict sense of the term. For many of the explanations of the original Sutras or aphorisms, not found in the Bodhananda's Commentary given in this work, have been taken from other commentaries on the work, by the expounder of this Shastra, Pandit T. Subraya Shastriji, who is therefore the real translator of this work.

This is purely a scientific work ; but there seems to be a mistaken notion prevalent even in the literate circles of the West naturally and of the East strangely, that physical sciences are an absent factor in the ancient Indian literature and works on scientific subjects are fundamentally foreign, though its philosophical metaphysical and other works are universally admitted as unsurpassed. This charge is further supported by the fact that the ancient Indian sages were mainly bent on spiritual pursuits and never on secular ones and that their scientific works or achievements, if any, are not now visible.

To answer this objection a few words of explanation are here necessary. Scholars of ancient India indeed cared more for spiritual welfare than for secular happiness and it is this trait of theirs that gave rise to the vast and varied literature. For they made laborious investigation to find out the real State of Brahman, the abode of eternal bliss and with this aim they conducted research work and experiments, in all conceivable fields of sciences and with the experience thus gained they composed Shastras for the good of mankind. Of these, the Religious and philosophical works deal with Brahman as the primary object and scientific truths as a secondary one, while the scientific works treat about scientific principles primarily though the ultimate object thereof is Brahman itself. Further the philosophic, psychic, religious, physical, metaphysical, chemical, medical, alchemic and other branches of sciences are so blended together in those works, that it is not easy to draw clear lines of demarcation between them. For, if messages are now transmitted with or without wires by physical forces, they used to be done by Yogic or metaphysical means in those days. Similar powers can be well imagined as existing in the past. Thus in the midst of exuberant plenty of convenient circumstances—long life, health, wealth, yogic powers etc.—necessary for the development of sciences and arts, who can say what wonders the hoary heads have not wrought in the unlimited space of time? Who can say which sciences the intellectual giants did not or could not deal with in the Golden Age of India?

Where are those scientific marvels and the Shastras now? Religious conflicts, Political convulsions, Meteorological and Geological changes and the like should explain the absence of the same. The intellectual wealth of India disappeared long, long ago, leaving her in a most helpless and degenerate condition!

Still there is no reason to be despondent, for it is never too late to mend. If the latent energy be rekindled, if the scattered forces are united, if the isolated and detached bits of knowledge

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and experience are gathered together, if theories are put into practice and above all if congenial atmosphere be created, the dawn of the Golden Age of India will not be long in coming.

Arts of Navigation, Air-flight and several other achievements of ancient India have recently been proved and it is the duty of the talented, not only to prove to the world the other wonders of scientific research, but also to bring them to practical fruition.

Coming to the subject, it remains only to be said, that owing to the peculiar circumstances under which the book had to be printed, mistakes of many kinds could not be avoided, for which indulgence of the cultured is earnestly craved. A list of the errata has been appended.

In conclusion, the translator earnestly prays to the Lord Almighty to grant long life and prosperity to the expounder and the publishers of this work, so that they may bring out many similar works for the welfare of mankind.

Bangalore }
5—2—1931 }

G. VENKATACHALA SARMA.

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श्रीशारदागणपति गुरुभ्योनमः

॥ अं शु बो धि नी ॥

॥ शास्त्रोपोदघातः ॥

पुरा खलु भगवान् भारद्वाजः इन्द्रानुग्रहं संलब्धं चतुःकल्पायुः तपसाब्रूह्माणं संतोष्य प्रत्यक्षीकृत्यच (श्रु) भरद्वाजेत्यामन्त्र्येत्यादि एकैकस्मिन् मुष्टिनाददे) त्यन्तवाक्यसंदर्भः श्रुत्युक्तप्रकारेण चतुर्मुखं वरप्रसादलब्धं ऋग्यजुस्सामाथर्वात्मकं समष्टिरूपं वेदराशिं, समानीय भूलोके स्थापयामास । पश्चाद्भगवान् वेदव्यासः तद्वेदराशिं ऋग्वेद, यजुर्वेद, सामवेद, अथर्वणवेद प्रभेदेन चतुर्धा विभज्य स्वशिष्यान् पैङ्गल, वैशंपायन, जैमिनि, सुमन्तु प्रभृतीन् ग्राहयामास । एवमेव तच्छिष्य प्रशिष्यादिभिः तद्गुणादिचतुर्वेदाः शास्त्राभेदेन विभज्य

OM

AMSU BODHINI

Introduction

Long long ago, the venerable sage Bharadwaja, by severe austerities, earned the goodwill of Indra who granted him a long life extending to four Kalpas. He spent this long life in penance so rigorously that Brahma condescended to appear before him. "Come here, O Bharadwaja" said Brahma and taking him to Brahmaloka where the Veda was ablaze in four heaps, gave him one handful from each. He then brought the resplendent Veda which was in the aggregate form of Rik, Yajus, Sama and Atharvana and established it in Bhuloka.

In course of time, people of the three castes could not grasp the spirit of the Veda in its aggregate form and so it was very difficult for them to perform their religious rites and rituals. Pitying this sad condition of these people, Vedavyasa with a view to simplify it, divided the aggregate Veda into four classes viz., Rik, Yajus, Sama and Atharvana and taught them to his disciples, Paingala, Vaisampayana, Jaimini, Sumantu and so on.

बहुलीकृताः । पश्चात्सर्वतन्त्रस्वतन्त्राधिकारिणः सर्वशाखाप्रवर्तकाः कश्यपं, आङ्गीरसं, भृगुं, आश्वलायनं, बोधायनं, आपस्तम्बं, याज्ञवल्क्यं प्रभृतयोक्तृषयः तत्तुच्छाखाभिप्रायं संगृह्य-
तदनुसारेण स्मृतिपुराणैतिहासधर्मसूत्रः, कल्पसूत्राद्यनन्त शास्त्राणि रचयामासुः । तेष्वतीत-
कल्पसृष्टिक्रममभिवर्ण्य वर्तमानं श्वेतवाराहं कल्पसृष्टिक्रमोपिप्रतिपादितः । तथैव भगवान्
भैरव्याजोपि (श्रुतिः । सूर्याद्वै खल्विमानि भूतानिजायन्ते त्याद्याथर्वणिकं सूर्योपनिषद्वा-
क्यानुज्ञानदृष्ट्या सम्यक्संशोध्य सूर्यकिरणं स्थितं स्थूलं, सूक्ष्मं, कारणं शक्तिभिरेव जगत्संस्थू-

These disciples of Vyasa in their turn, actuated by the desire of rendering the already simplified Veda more simple, subdivided each of the four branches of Veda, into many more branches (Bahu Sakha). Thereupon the most erudite sages Kasyapa, Angirasa, Bhrugu, Aswalayana, Bodhayana, Apastamba, Yagnavalkya etc., who had command and mastery over all branches of Veda, studied them all with intellectual vision, summarised the secret truths thereof and reproduced them in the form of Smrutis, Puranas, Itihasas, Dharma Sutras, Kalpa Sutras and so on, for the good of mankind. These puranas and other shastras clearly describe the process of creation of past Kalpas as well as that of the present Swethavaraha Kalpa. The treatment of these points in these works is so stiff and scholarly that laymen cannot follow them. With a view to make these knotty points clear, the most celebrated Maharshi Bharadwaja studied the different accounts of creation, contained in these Shastras. Having also studied all passages such as "All Creation emanates from the Sun" of Adharvanic Suryopanishad, he at last concluded that the three kinds of Creation gross, subtle and causal, take place by the gross, subtle and causal powers present in solar rays. To demonstrate his theories on the gross creation, he invented several 'Manies' (Crystals) such as Kirana Vibhajaka mani, described in a work known as "Mani Prakarana," and several varieties of glass such as 'Kaladini,' described in Darpana prakarana, and appliances and machines such as 'Kirana Shakti Vibhajaka Yantra' detailed in Yantra Prakaran

ल, सूक्ष्म, कारणं सृष्टयो भविष्यन्तीति, निश्चित्य तत्र स्थूलकिरणशक्तिभिर्जायमानं स्थूलसृष्टिक्रमं मणिदर्पणं यंत्रौष्ठधादि स्थूलोपकरणैः तथैव सूक्ष्मकिरणप्रकाशसृष्टिवीजशक्तिभिर्जायमानसूक्ष्मसृष्टिक्रमं योगशास्त्रोक्तपंचमनादि सूक्ष्मोपकरणैः तथा कारणसृष्टिवीजकिरणप्रकाशशक्तिभिः जायमानकारणसृष्टिक्रमं वेदान्तशास्त्रोक्तविचाराद्युपकरणैश्च अनायासेन मन्दमतीनां करतलमलकवत्प्रत्यक्षेण प्रदर्शयितुं केवलसूर्यकिरणप्रधानं, मंशुबोधिनीशास्त्रं द्वादशाध्यायपरिमितं सहस्राधिकारैः सूत्ररूपेण रचयामास ॥

and acids described in Dravaka Prakarana. Again to demonstrate how the subtle creation takes place from the subtle forces of the solar rays, he has propounded such subtle means as 'Vasthu Samyamana'* detailed in Yoga Shastra. Lastly to demonstrate the causal creation that emanates from causal forces of the solar rays he expounded metaphysical arguments and reasoning—Vichara† dealt with in Vedanta Shastra. Having expounded all these very lucidly he incorporated them all in a book called Amsu Bodhini, in aphorisms, extending to a thousand sections, subsumed under twelve chapters.

* Samyamana is the method of freeing the mind from agitation by controlling the movements of Prana and Apana and of concentrating it on a particular object.

† Vichara is the process of realising the object (with which the mind got Samyamana by means of concentration) on enquiry as to what and where it is, whence it came and whither it will go.

॥ अथ शास्त्रारम्भः ॥

॥ मङ्गलचरणम् ॥

यद्ज्योतिषां ज्योतिरितिप्रचक्षतेयदंशुभिस्सर्वजगत्प्रकाशः ।

यद्भासते सर्वहृदिस्वयंप्रभा तमेवभान्तं प्रणतोस्मिनित्यम् ॥१॥

यदंशुमयनाद्विद्यमुदित्यंजातवेदसम् । वहन्तिकेतवोनित्यंतन्नत्वांशुप्रभाकरम् ॥

COMMENCEMENT OF THE SHASTRA.

Mangalacharanam.

To that light which is proclaimed by the learned to be the giver of light, to all the luminous objects, such as the sun, the moon, the stars, lightning and so on, whose luminous rays illuminate the entire inanimate universe, which is (without the aid of any external object) Self-effulgent and shines in the hearts of all beings, as if a mere on-looker (Sakshi) and to that self-effulgent light of Paramatma in the presence of which, as the Sruti declares, no other luminous object can shine, I offer my worship, feeling identity with it.

Having prayed to Nirguna or the formless state of the Supreme Being in the first verse, the author in the second verse, does so to Saguna or manifest state of Atma in the manner prescribed in the Veda, thus—

That Shakti which emanated from Paramatma in the form of his volition for creation, in accordance with Sruti “May I be many” and which is inseparable from him as moonlight from the moon, is called ‘Moola prakriti’, from which radiate rays. The resplendant fiery globe emanated from the friction of these rays of Satwa, Raja and Tama qualities, is always borne by Chandomaya rays such as Gayatree, Ushnik, Anushtup etc. These rays get their light from Suryanarayana, the Lord of the Solar globe, to whom I offer worship and then begin to write this Shastra, Ansu Bodhini.

त्रयीहृदयसन्दोहं साररूपां सुखावहाम् । कूटस्थविवृत रूपसृष्टिविज्ञानदायिनीम् ॥
 यन्त्रतन्त्रोपकरण कार्यनिर्णयबोधिनीम् । सूर्योशुभेदनात्तच्छक्तिप्रभेदप्रदर्शिनीम् ॥
 वैदिकीं सर्वलोकानां भुक्तिमुक्तिप्रदायिनीम् । अधिकारसहस्रैश्चद्वादशाध्यायसंयुताम् ॥
 वर्णसंकृष्टतसांकेतसूत्रैस्सम्यग्यथाक्रमम् । सर्वलोकोपकारायप्रवक्ष्याम्यंशुबोधिनीम् ॥

Having thus performed the propitiatory ceremony of invocation to both the Nirguna and Saguna states of the Supreme Being, the author describes the worth and scope of the work. This Shastra is the essence of the Vedas just as milk, fresh and pure from a cow, imparts to its students happiness here and hereafter, and to the philosophical inquirers, a decisive knowledge and experience that the universe is only an expanded form of Kutastha, who is present in the hearts of all beings and in no way different from him. Further it gives the research scholar a clear knowledge of the use of the various machines and appliances and mirrors and glasses and so on, with the help of which solar rays can be analysed and examined and the creative forces embedded in them can be found out, so that the process of creation of the Universe can be demonstrated.

In short, it discloses an intimate knowledge of everything connected with the sun and the solar rays, (and how they can be employed for various purposes) and the creation that emanates therefrom. This work is in aphorisms, composed of alphabets from 'A' to 'Ksha' signifying technical meanings, arranged in one thousand sections, which are subsumed under twelve chapters.

After giving briefly an idea of the subject matter, the scope of its practical utility and of the benefits it confers (of course, according to merit), on those who make a systematic study of it, as described by the author Bharadwaja, now the verses of the commentator will be given and their meaning explained.

॥ व्याख्यान श्लोकाः ॥

महादेवं महादेवीं वाणीं गणपतिं गुरुम् । शास्त्रकारं भरद्वाजं प्रणिपत्य गृह्णामि ॥
पूर्वाचार्यान्निमस्कृत्य तदन्धानवलोक्य च । स्वतस्सिद्धन्यायशास्त्रं बाल्मीकिगणितं तथा ॥
परिभाषाचन्द्रिकां च तथानामार्थकल्पकम् । समालोड्य विशेषेण तत्प्रमाणानुसारतः ॥

THE COMMENTARY.

That form of Paramatma whose beginning and end are beyond the knowledge of even Gunamurtis viz. Hari, Hara and Brahma is known as Mahadeva and His Consort, as Mahadevi. Saraswati is His speech, the consort of Brahma. Ganapati is His heart and Lord of the thirty-three crores of celestial beings. Bharadwajah* who takes in the entire Universe as an immense meal at the time of dissolution, and who is the author of this Shastra, is the soul (Prana) of Mahadeva. To all these the commentator offers his worship and then begins to write the commentary on the Shastra, Amsu Bodhini.

“ Having paid my respects and expressed gratitude to the several authors† who have, on the subject, composed works which I have carefully studied and also having made a thorough study of scientific works such as Swatassiddha Nyaya Shastra (a book of axioms or self-evident truths), Valmiki Ganita, Paribhasha Chandrika, Namārtha Kalpa and so

* Itareya Brahmana gives the following explanation of the word Bharadwajah.

Bharadwajah is a compound word made up of the two simple words, Bharat and Wajah.

Wajah means food. That which takes food in is called prana. In other words the aggregate prana is known as Hiranagarbha. That incarnation which Hiranagarbha assumed for the purpose of establishing the Vedas, (which were within him) in this world, is known as Baradwajah.

† Maharshi Apastamba in his work Samanvayadhi Karana, names the authoritative scientific works and their authors referred to above by the Commentator, as follows :—

The authors are Uchichya, Yagnavalkya, Praskanya, Gautama, Dirghatama and Shaunaka. who are all venerable sages, celebrated for their learning.

Their works, in order, are Mayukha Tantra, Kirana Kalpadruma, Amsutatva Kriyasara, Amsuhridaya, Marichikalpa and Karakalpa-Sudhanidhi.

सांकेतिकरहस्यानु सारेणैवविशेषतः । बालानां सुखबोधाय बोधानन्दयतीश्वरः ॥
संग्रहेणांशुबोधिण्याश्श्लोकरूपाद्यथाक्रमम् । लिलेखबोधानन्दवृत्त्याख्यां व्याख्यामनोहराम् ॥
व्याख्यालक्षणरीत्यास्यपाणिनीयादिमानतः । पारिभाषिकरूपत्वाद्वाचाख्यातुं नैवशक्यते ॥

तथाहि ॥

श्रुतेर्विरुद्धं च्छास्त्रं श्रुत्यङ्गानांतथैवहि । तच्छास्त्रंदूरतस्त्याज्यं व्याख्यातुं नार्हति ध्रुवम् ॥
षाण्डित्यादर्थलोभाद्वाप्रमादात्साहसाद्बुधः । वेदवेदाङ्गदूरस्यशास्त्रस्यस्वीयबुद्धितः ॥
व्याख्यानं यदि कुर्वीत रौरवं न कं व्रजेत् । इत्युक्तं प्रवचनाधिकारनिर्णयशास्त्रके ॥
वेदव्यासेन मुनिना वेदतत्त्वार्थवेदिना । तस्मादारंभितं शास्त्रं निरर्थकमितीरितम् ॥
निरर्थकस्य शास्त्रस्य कथं व्याख्यातुमर्हसि । इति चेत्संप्रवक्ष्यामि व्याख्यानाहंत्वकारणम् ॥
आरंभितस्य शास्त्रस्य वेदमूलत्वकारणात् । त्रयीहृदयसंदोहसाररूपामिति स्वयम् ॥
शास्त्रारंभे स भगवान् भरद्वाजो ब्रवीद्यतः । अतोऽंशुबोधिनीशास्त्रं व्याख्यानाहंत्वतां व्रजेत् ॥

on, I write in verse and in the same technical style, a commentary known as 'Bodhananda Vritti' for the purpose of making this work accessible even to boys and laymen. May it delight the cultured and benefit the world.

"But the only defect is that on account of the highly technical nature of the work, the commentary could not follow the standard "Vyakhyanam Panchalakshanam" and the Pāṇinian Code.

"Well, now one may raise an objection as follows :—

In a Shāstra known as Pravachanadhikara, Veda Vyasa observes that that Shāstra which is not in conformity with the teachings of Sruti and its Angas i.e., the six shāstras viz., Siksha, Vyakarana and so on, is not accepted by the orthodox and as such it is to be condemned and kept at arm's length. The present work, Amsu Bodhini being one of such does not deserve a commentary to be written upon. Should any person, actuated by pride of scholarship or thirst of money, or by mistake or audacity write a commentary on such a work in his own way, he is sure to suffer in the darkest of hells. It is therefore objectionable to try to spin out a commentary on this Shāstra."

अपिच ॥

आरंभितस्यशास्त्रस्यकरकल्पादिशास्त्रवत् । आथर्वणिकसूर्योपनिषन्मूढत्ववर्णनात् ॥
एतत्सांकेतिकप्रमाणशस्त्रेदप्रमाणतः । भवेद्व्याख्यानार्हकत्वंशिष्टानुग्रहेहेतुतः ॥

अन्यच्च ॥

पाणिनीयादिशास्त्रप्रमाणदूराण्यपिक्रमात् । श्रुतिमूलानिचेत्सांकेतिकशास्त्राण्यथाविधि ॥
भ्रान्तिव्याख्यानार्हणीतिचव्यासेनधीमता । उक्तत्वात्प्रवचनाधिकारेपुनर्यथाक्रमम् ॥
शास्त्रमानर्थक्यमिति यदुक्तंपूर्वमेवतत् । दूरतोपास्तमेवस्याद्वेदव्यासोक्तिः क्रमात् ॥
अतःपूर्वाचार्यमतमनुसृत्ययथाविधि । पूर्वोक्तसांकेतिकशास्त्रप्रमाणैरेवकेवलम् ॥
सतांमोदायविधिवल्लोकानुग्रहकांक्षया । संग्रहेणांशुबोधिण्याः व्याख्यानंक्रियतेमया ॥
प्रारम्भितस्यग्रन्थस्यनिर्विघ्नेनयथाक्रमम् । परिसमाप्तिप्रचयगमनाभ्यांयथाविधि ॥
शिष्टाचारपरिप्राप्तमङ्गलाचरणंस्वतः । अनुष्ठाययथाशास्त्रंशिव्यशिक्षार्थमादरात् ॥

The commentator, however, defends himself by stating reasons to prove that the Shastra in question does not fall under the category of "underserving of commentary" and that therefore his present attempt is, thus not futile.

In the first place the author Bharadwaja himself has declared at the beginning of the Shastra that it is the quintessence of the Veda and so it is based on Sruti and nowhere opposed to its teachings. Secondly, this work has, as in the case of Karakalpa and so on, Suryopanishad of Atharva Veda for its origin. Besides this Pravachanadhikara itself, the authority of which has been quoted to prove the work in question as undeserving of a commentary, subsequently proclaims that those Shastras or works whose origin is Veda deserve commentaries. These reasons conclusively justify the deduction that the work in question is nowhere opposed to the doctrines of Sruti, that it is accepted by the orthodox and that therefore it does deserve a commentary. Thus the above objection becomes null and void. We shall therefore write a brief commentary on Amsu Bodhini, following the method and style of the commentators of yore, such as Viswambharacharya who have written commentaries on the six works referred to above.

यद्ज्योतिषान्ज्योतिरितीत्यादिश्लोकद्वयेनहि । स्वेष्टदेवनमस्काररूपमङ्गलमाननोत् ॥
अर्थात्सूचयतिप्रन्येअनुबन्धवचतुष्टयम् । अतिगोप्यमिदंशास्त्रवेदस्यहृदयंययतः ॥

अध्यायः १ सूत्रम् १.

॥ अथकल्पसृष्टिरात्मत्वात्सूत्रेण ॥

॥ बोधानन्दवृत्तिः ॥

पराशक्याद्यासदाशिवकल्पान्तंयथाक्रमम् । महाकल्पाश्चतुष्पष्टिरितिशास्त्रविनिर्णयः ॥१॥
जगत्सृष्टिःक्रमात्तेषुतत्तत्कल्पाधिकारिभिः । तत्तत्कल्पश्रुतिप्रोक्तरीत्यानानाप्रकारतः ॥२॥
अन्नान्नादप्रभेदेनसृज्यतेपूर्वकल्पवत् । एवंहिश्चेतवाराहकल्पश्रुत्यनुसारतः ॥३॥

BEGINNING OF THE COMMENTARY.

With a view to avoid any impediments and disturbances in the way of successful completion of the work in hand and for the benefit and edification of his disciples, the author, Bharadwaja performs the propitiatory ceremony of invocation pursuant to the traditional custom, and incorporates the same in his work by the two opening verses. The four objects of studying the Shastra have also been suggested in the context.

CHAPTER I—APHORISM 1.

Thereupon the creation of Swethavarahakalpa was conducted by Soorya, the sun, since he is identical with Paramatma. This is the Aphorism.

BODHANANDA'S COMMENTARY:—

Shastras declare that there are 64 kalpas (long periods of time) the first of which is Parasaktikalpa and the last Sada-sivakalpa. The process of creation during each of these kalpas is conducted by the Lord of the kalpa concerned, in accordance with the sruti of that kalpa, the process of creation being exactly similar to that of the previous kalpa, that is, in the

एतत्कल्पाधिपतिनासूर्येणात्मस्वरूपिणा । श्वेतवाराहकल्पेस्मिन्सृष्टिकर्मसमग्रतः	॥४॥
वक्तुकामोभरद्वाजस्सर्वलोकहितेतरतः । चक्रंशुबोधिनीनामशास्त्रलोकोपकारकम्	॥५॥
तस्यप्रथमसूत्रार्थसंग्रहेणनिरूप्यते । कल्पसृष्टिप्रबोधकपदान्यस्मिन्क्षुःक्रमात्	॥६॥
पदच्छेदनतस्सम्यङ्निर्गणितानियथाविधि । तत्राथशब्दःपूर्वकल्पानन्तर्यार्थबोधकः	॥७॥
श्वेतवाराहकल्पस्यसृष्टिमेवयथाक्रमं । द्वितीयपदतःप्रोक्तंतृतीयपदतस्तथा	॥८॥

order of Food and the Eater of food. Maharshi Bharadwaia with the philanthropic view of proclaiming to the universe the fact that the creation of Swethavarahakalpa is conducted as aforesaid, by Sooryanarayana himself who is the Lord of this kalpa and who is identical with Paramatma, disclosed out this famous shastra, Amsu Bodhini.

The meaning of the first aphorism of this great work is briefly explained here, thus—

This aphorism resolves itself into four words dealing with the process of creation of this Swethavarahakalpa. The first word viz., "Atha", refers to the time subsequent to the period ending with the dissolution (Pralaya) of the kalpa preceding it. The second word names the creation of Swethavarahakalpa. The third word establishes the identity of Soorya with Paramatma, on the authority of the Atharvana Sruti. The fourth word indicates the creation taking place from Sooryanarayana or the sun.

This is the meaning of the words in the aphorism, the general sense of which is this.

THE GENERAL SENSE.

Paramatma who is beyond the influence of Maya ideated to create the universe by projecting himself into the form of the Universe. Notwithstanding his Cosmic Ideation he was, on account of his changeless state, unable to create the universe without the help of some Upadhi or an external object. This he found in his own Mayashakti. With a portion of this Mayashakti therefore he created the upadhi viz..

अयं ऋषिः प्रोक्तात्मा त्वं सूर्यस्य दर्शितम् । चतुर्थपदतस्तं सूर्येण सृष्टिः प्रदर्शिता ॥९॥
पदार्थमेवमुक्त्वा स्वसामान्यार्थो धुनोच्यते ॥

॥ सामान्यार्थः ॥

वर्तमानश्चेतवाराहकल्पे सिन्यथाक्रमम् ॥१०॥
संकल्पमकरोत्स्वर्गं परमात्मानिरञ्जनः । जगदाकारतस्त्वात्मानमेविवृतक्रमात् ॥११॥
तथापि निर्बिकारत्वात्स्वशक्त्योपाधिमन्तरा । नशशाकजगत्सृष्टिस्वयं कर्तुमर्हतः क्रमात् ॥१२॥
स्वशक्त्यैकांशतस्त्रयीमंडलोपाधिमद्भुतम् । अकल्पसृष्टिबीजमयमत्यन्तभास्वरम् ॥१३॥

Thrayeemandala* which is very wonderful and resplendant and
s in the form of the seed of creation.

Parameswara afterwards, with another portion of his Maya-shakti created a glorious power known as Aditya, possessing extreme heat and radiance and infused it within that Thrayeemandala or the orb of the three Vedas. Thereupon Parameswara entered into that globe for the propagation of the universe. Then he got the human form which the veda names Hiranya Garbha. Again it is this Hiranyagarbha who is no other than Paramatma himself, that Maharshis describe as Brahma, Viswasrut (the creator of the universe), Prajapati (Lord of creatures) and so on, in all the Vedas, Shastras, Puranas, Ithihasas etc. Further the theistic declare that this Hiranyagarbha or Soorya is the Lord of creation of the Swethavarahakalpa. The eternal Sruti therefore in its passages such as "Soorya is Paramatma or the creator of the entire universe", asserts that this Soorya is identical with Paramatma. It is thus plain that the creation of Swethavarahakalpa which succeeded Padmakalpa, takes place by Soorya, the process of creation of the universe being in the form of projection of his own self. This is the general sense of the aphorism.

Notes :— * Thrayee—means the three vedas.

Mandala—is the orb of those vedas.

Upadhi—means cause.

पुनस्तत्त्वैकांशेनादित्यमत्यन्ततापदम् । निर्मायतन्मण्डलेयसंदधेपरमेश्वरः ॥१४॥
 तदादित्यांतरेपश्चात्सप्तजगदीश्वरः । प्रविशत्सूर्यरूपेणसृष्ट्यर्थजगतःक्रमात् ॥१५॥
 पश्चाच्छिरःपाण्यद्यंगैर्युक्तोमूर्तित्वमापसः । हिरण्यगर्भइत्याहतमेवहिसनातनी ॥१६॥
 ब्रह्मेतिविश्वसृष्टितिप्रजापतिरितिक्रमात् । वेदशास्त्रपुराणेतिहासादिषुविशेषतः ॥१७॥
 एतद्विरण्यगर्भात्मानमेवाहुर्महर्षयः । कल्पाधिपतिनामध्येएषएवदिवाकरः ॥१८॥
 श्वेतवाराहकल्पाधिपतिरित्याहुरास्तिकाः । सूर्यआत्मेत्यतःप्राहश्रुतिस्साक्षात्सनातनी ॥१९॥
 पञ्चकल्पानन्तरितश्चेतवाराहकल्पके । तस्मात्सृष्टिरभूत्सूर्येणात्मत्वाद्विवृतत्वतः ॥२०॥
 इतिप्रथमसूत्रार्थसंग्रहेणनिरूपितः । एवंसामान्यार्थमुक्त्वाविशेषार्थाधुनोच्यते ॥२१॥

॥ विशेषार्थः ॥

ननुसृष्ट्यधिकारत्वंनिर्विकारपरात्मनः । षट्शक्तिमयहेतुत्वाच्छास्त्रेषूक्तंमहर्षिभिः ॥२२॥
 सूर्याचन्द्रमसौधातायथापूर्वमकल्पयत् । इत्यादिश्रुतिवाक्येभ्यःकल्पितत्वंरवेस्मृतम् ॥२३॥
 कल्पितत्वात्षट्शक्तित्वमतोमैवविद्यते ।

The following explanatory meaning is also appended to this aphorism.

In this connection the author assumes an opponent, contradicting his statement and argues with him to establish it. This is the objection raised by the opponent.

“Well, sir, according to your statement, Soorya, the sun is the agent of creation. But the most erudite of sages and seers declare in shastras that the agency of creation is or can be attributed only to Paramatma, who is self-existent and eternal and in whom the six characteristics essential for conducting the process of creation are inherently present. The agent of creation therefore must be self-existent and eternal and possessed of the six powers naturally. Now the sruti declares that Brahma

॥ षट्शक्तिस्वरूपमुक्तं सृष्टिबिलासे ॥

अधिष्ठानत्वमात्मत्वमुपादानत्वमेवच

॥२४॥

निमित्तत्वंविवृतत्वंनिरुपाधित्वमेवच । यस्यास्तिसततं एतादृशक्यषट्स्वभावतः

॥२५॥

तस्यैवसृष्टिकर्तृत्वाधिकारत्वंप्रकीर्तितम् ॥

॥ इत्यादि ॥

created Soorya and Chandra, the sun and the moon just in the same manner as in the previous kalpa. This conclusively proves that Soorya is not self-existent and eternal but that he is only an object of creation and transitory.

Again, according to Srushtivilasa the agent of creation should inherently possess the following six characteristics viz.-

- (1) Adhishtanatwa or the quality of being the support of creation, just as a wall is the support of the pictures on it.
- (2) Atmatwa or capacity to remain eternal and changeless in the presence or the absence of creation which has to perish.
3. Upadanatwa or the capacity of being the chief or material cause of creation.
4. Nimittatwa or the power of being the instrumental cause of creation.
5. Vivrutatwa or the power of projecting himself into the form of the universe.
6. Nirupadhitwa or the property of not being attached to Upadhi or any object other than himself. Without

तस्मात्सृष्ट्यधिकारत्वंकथन्नुघटतेरेवः ॥२६॥
 अतस्मूत्रेजगत्सृष्टिस्मूत्रेणेतियदीरितम् । तदसिद्धंभवेत्तस्मादेतच्छास्त्रंनिरर्थकम् ॥२७॥
 निरुपाधिकोवासोपाधिकोवात्मा महेश्वरः । नित्यत्वादेकरूपत्वादखंडत्वान्निरंतरम् ॥२८॥
 तस्यसृष्ट्यधिकारत्वंषट्शक्तित्वं तथैवच । अधिष्ठानत्वमात्मत्वंवर्तत्येवेतिहिस्फुटम् ॥२९॥
 द्वितीयसूत्रतश्चास्त्रेसर्वमेतद्यथाक्रमम् । विशदीक्रियतेसम्यक्श्रुतिवाक्यप्रमाणतः ॥३०॥

these six characteristics no agency of creation can be justified to any.

Now it has already been proved that Soorya is only an object of Brahma's creation and consequently fails to be self-existent and eternal. Therefore it is plain that he cannot possess the above characteristics essential for an agent of creation. It is thus foolish to ascribe to Soorya who is an object of creation, who is perishable and who does not possess the above six characteristics indispensable to the Lord of creation, the agency of creation which is justifiable only in the Paramatma who is self-existent and eternal, and possessed of the case of above six characteristics inherently and eternally.

In this way your statement viz., Soorya is the agent of creation, has been proved prejudicial to Sruti and false, and your shastra containing such false statements and theories is evidently false, useless and harmful".

The author answers the above objection and justifies his own statement, thus—

Well, sir, it is to be noted that with the Maya upadhi Atma is in Sopadhika or manifest or conditioned form and without it he is in Nirupadhika or unmanifest or unconditioned form. But

अतएवस्यतत्साक्षात्क्रमादावर्णश्रुतिः । सूर्यआत्माजगत्सत्स्थुषश्चेत्यादिभिस्तथा ॥११॥
 सूर्यद्वैखलिमानीत्यादिवाक्यैश्चयथाक्रमम् । सूर्यस्यसृष्टिर्कृत्वमात्मत्वंचस्वभावतः ॥१२॥
 प्राहतस्माज्जगत्सृष्टिश्चेतवाराहकल्पके । श्रुत्युक्तिमनुसृत्यैवसूर्येगेतिप्रकीर्तितम् ॥१४॥
 अतस्त्वदुक्तसिद्धत्वंशास्त्रानर्थक्यमेवच । दूरतोपास्तमेवस्यात्तस्मात्सिद्धान्तमीरितम्॥१६॥

since the process of creation cannot take place with the Absolute or unconditioned state he joins with upadhi, becomes conditioned and thus manages the process of creation. It is to be noted here that Atma, in the conditioned state, is naturally possessed of all the characteristics such as Adhishtanatwa or being the support of creation, the six powers essential for the agent of creation of the universe and of the state of Atma and so on just in the same way as in the case of the Absolute and unconditioned Atma. All these points are dealt with very lucidly and elaborately in the course of the commentary on the second aphorism of this shastra. Suffice it here to say that such passages of Adharvana Sruti as that (1) Soorya is Atma of the entire universe, (2) all the Bhutas evolve out of Soorya etc., emphatically prove that the term Atma applies to Soorya and that therefore he is the agent of creation.

Now, since the eternal sruti itself has recognised that Soorya is the agent of creation of the Swethavarahakalpa, the objection you raised above falls to ground. Further the statement made in the first aphorism of the shastra is proved, on the authority of the veda, to be correct, altruistic and in advancement of scientific lore.

This is the explanatory meaning of the first aphorism.

अध्यायः १, सूत्रम्, ९अ.

अत्मसिद्धिरधिष्ठाता तत्पञ्चदशन्यायेन

॥ बोधानन्दवृत्तः ॥

पदानित्रीणि सूत्रेस्मिन्नात्मसंसिद्धिनिर्णये । तत्रादिमपदे नात्मनिर्णयस्संप्रकीर्तितः ॥
अधिष्ठाता स्वभावत्वं द्वितीयपदतस्मिन्मृतम् । स्वतस्सिद्धप्रमाणत्वं तृतीयपदतस्तथा ॥
एवंपदत्रयैस्सम्यक्सूत्रस्मिन्संप्रमाणतः । उक्तं स्यादात्मसंसिद्धस्सुविचार्ययथाविधि ॥
तत्रादावात्मविषय विचारस्संप्रकीर्त्यते । एकमेवेत्यदिवाक्यैरात्मावेत्यादिभिस्तथा ॥
सूर्य आत्मेति जाकाशा आत्मेत्याद्यैरनेकधा । अत्माप्रभेदं श्रुत्येव बहुधा संगिरन्ति हि ॥

Chapter I—On Creation.

Aphorism IA.—According to the fifteenth axiom, that which is Adhishtana is Atma.

Or

From Adhishtana (Siddhi) Atmasiddhi results and it is proved by the 15th axiom.

This aphorism consists of three parts determining the nature of Atma. The first of them says what Atma is, the second determines the nature of Adhishtana and the third mentions the fifteenth axiom to prove how Adhishtana comes to possess that nature.

Thus the aphorism in its three parts determines authoritatively and briefly what Atma is. We shall now comment on these three expressions in detail.

Śruti in its different passages describes Atma differently as follows:—

- (1) Brahma (Atma) is one, there being nothing else ;
- (2) At first Atma alone and nothing else existed ;
- (3) Surya or the sun is Atma ;
- (4) Akasa is Atma, (and so on), thereby giving scope for viewing Atma in two aspects, (1) as one and (2) as many.

आत्मसंसिद्धिरेतेषु श्रुतिर्लोकहितैषिणी । एकस्यैवात्मनोऽज्ञेयतेऽतानेकात्मनामिति ॥
 संशये समनुप्राप्ते सिद्धान्तस्संप्रचक्षते । सत्यज्ञानानन्तरूपः परमात्मानिरञ्जनः ॥
 सृष्ट्यादावेकवासी नान्यत्किंचिन्मनागपि । स एवात्मा स्वमायोपाधिमंगीकृत्य हि स्वयम् ॥
 गुणमूर्त्यादिभेदेनानेकात्मत्वमवापहि । उपाधिग्रहणात् पूर्वमखंडैकरसात्मनः ॥

There is therefore reason for doubt as to whether the term Atma referred to in the above aphorism applies to the oneness or to the manyness of Atma. This doubt is cleared up and the conclusion arrived at as follows.—

Prior to creation Atma alone, who was unaffected by Maya who was truth and knowledge and eternal, was and nothing else was.

Shastras declare that the same absolute and unmanifest Atma subjecting himself to the Maya Upadhi which exists within him naturally and inseparably, as moonlight in the moon, got different forms such as Brahma, Vishnu, Rudra, Surya and so on, and manifested as many Atmas. In other words, the same absolute and undivided Atma, prior to his subjecting himself to the Maya Upadhi, was absolute, unmanifest and undivided one, but afterwards by the illusion caused by the Maya Upadhi, expanded himself in to the form of Trinurtis and the entire universe, and manifested as many Atmas. In fact this condition of manyness to Atma is only apparent on account of illusion caused by Upadhi and as such is not real. This statement is corroborated by the following passages of Sruti:—

- (1) Having created it (the Universe),
- (2) He entered into it (the Universe),
- (3) He caused himself to manifest in the form of the Universe, etc.

The first two of these passages declare that Paramatma is both cause and effect of creation, that as cause he, (affected by the Maya Upadhi) creates the universe, which is (in the form of)

आत्मसिद्धिस्वतस्मिद्धेत्याहसाक्षात्सनातनी । उपाधिग्रहणादूर्ध्वं स एवात्मानिरंशकः ॥
 विवृतत्वं समासाद्यस्वस्मिन्नेवस्वयंक्रमात् । अनेकात्मत्ववद्वातिभ्रान्तिमात्रात्स्वतो न हि ॥
 तत्सृष्ट्वा तदेवानुप्राविशदित्यादिवाक्यैः । तदात्मानंस्वयमकुरुतेतिवाक्यतश्च हि ॥
 विवृताविवृताभ्यामेकस्यैव हि चिदात्मनः । एकानेकात्मसंसिद्धिं श्रुतिराहसनातनी ॥
 आत्मसिद्धिर्द्विधा प्रोक्ता मुख्यगौणविभागतः । श्रुत्यामनेकात्मपरावाक्यास्त्युगौणसंज्ञकाः ॥
 एकात्मबोधकायेस्त्युर्वाक्यास्ते मुख्यसंज्ञकाः । तात्कालिकात्मसंसिद्धिर्गौणवाक्यैरुदाहृता ॥

effect and that in the Antahkarana, which is in the form of the totality of essence of all beings, he reflects himself having no attachment with it, just as the sun in a mirror. The third passage avers that the same absolute Brahma (Atma) at the beginning of creation, by virtue of his Maya Upadhi rendered himself first as Avyakta* or unmanifest Brahma (Atma) and subsequently as Vyakta or manifest Brahma (Atma).

The (unmanifest) Avyakta itself expands and manifests in the form of the universe concrete and perceptible to senses. This state of Avyakta is known as Vyakta.

In this way passages of Sruti recognise the same absolute Atma, oneness on account of the unmanifest state and manyness on account of the manifest state (of Atma).

The term Atma is thus used in two senses, primary (Mukhya) and secondary (Gauna). The passages of Sruti delineating the nature of Atma are also of two kinds, major and minor ones. The major passages describe oneness in the primary sense of Atma, which is natural to him. The minor passages, on the other hand, denote manyness in the secondary sense of Atma, acquired on account of Upadhi.

Gauna Siddhi or the secondary aspect of Atma is so called, because the minor passages of Sruti speak of manyness of Atma,

*Avyakta is that state of universe which is abstract and imp receptible to senses, but limited only by name and form.

स्वतसिद्धात्मसंसिद्धिर्मुख्यवाक्यैरुदाहृता । असिद्धिर्गौणसंसिद्धिरिति वेदानुशासनम् ॥
 एकात्मसंसिद्धिमेवलक्षीकृत्य श्रुतिस्वयम् । अनेकात्मत्वं संसिद्धिं प्राह शास्त्रेणैकवा ॥ •
 उपाधिनिरुपाधिम्यामेकस्मिन्परमात्मनि । एकानेकात्मसंसिद्धिर्घटत्येवं संशयः ॥
 ब्रह्माविष्णुमहेशानसूर्यस्कन्दादयः क्रमात् । भवन्ति स्वस्वरूपेण परमात्मैव केवलम् ॥
 देहोपाधि वशादेवानेकात्मत्वं परात्मनः । अनेकत्वमनित्यं स्यादात्मत्वं नित्यमेव हि ॥

which is not absolute and eternal, but transitory and limited by time and space. Contrarily the Mukhya Siddhi or the primary aspect of Atma is so called, because the major passages speak of oneness of Atma which is absolute, eternal and unlimited by time and space.

Sruti no doubt recognises these two aspects of Atma, but at the same time proclaims that the secondary state i. e., manyness of Atma, is not real and that it is not to be regarded as an independent state at all.

If so, it may now be questioned why such a secondary state of Atma is at all mentioned in the Sruti. The answer is this:—

Well, Sruti in speaking of manyness or manifest or secondary state of Atma keeps the oneness or unmanifest or primary state of Atma in view, considering the secondary state as acquired on account of Upadhi. In this way the same absolute, undivided and eternal Atma comes to be known in two aspects—manyness or transience on account of being affected by Upadhi, and oneness or eternity on account of being unaffected by it.

It may again be objected that when these two aspects are asserted of the same absolute and eternal Atma, they should both be essentially eternal, and it is wrong to say that the one is eternal and the other is not.

Well, this objection is solved thus: The same absolute Atma exists in both these unmanifest and manifest aspects. How unmanifest becomes manifest is this. •

नित्यस्यैवात्मसंसिद्धिरनित्यस्य कदाचन । ब्रह्माविष्णुमहेशानसूर्यादिषु यथाक्रमम् ॥
यदस्ति नामरूपे द्वे तदुपाधिरिति रितम् । नामरूपविहीनात्मा योस्ति ते पुनिरंशकः ॥
सर्वावभासकस्साक्षी स एवैकात्मना स्थितः । एतावदुक्तं खंदर्भादात्मसिद्धिस्वभावतः ॥
नामरूपाद्युपाधित्वमंगीकृत्य श्रुतिस्त्वयम् । अनेकात्मत्वमुक्त्वाथ सिद्धान्तत्वेन केवलम् ॥

Prior to creation absolute Atma having no forms such as Brahma, Vishnu, Rudra, Surya, Akasi and so on, was formless and alone, and so the unmanifest state evidently follows for Atma. The unmanifest Atma subjecting himself to the Maya upadhi, gets various manifestations and so the manifest state also evidently follows for Atma.

The unmanifest Atma on account of the Upadhi gets manifest forms infinitely —Brahma, Vishnu and so on, but as they are only illusory they are said to be inanimate. And as inanimate bodies have no self-effulgence, it is to be noted that the unmanifest Atma itself pervades in all manifest and inanimate bodies and animates them all. Thus, it is on account of the upadhi, giving rise to indefinite manifest forms such as Brahma, Vishnu and so on, that Atma, naturally absolute and unmanifest, gets the secondary aspect of manyness or comes to be possessed of the quality of existence as many.

The Sruti therefore declares that the manifest state of the unmanifest Atma on account of its being impermanent is styled as manyness of the Atma and the natural unmanifest state, by virtue of its being permanent is styled as the oneness of the Atma. In other words, that form of Atma which is natural and unmanifest and imperishable and eternal is alone Atma, but the illusory and manifest and perishable and transient forms such as Brahma, Vishnu and so on are not Atma. However, that which exists in all these inanimate manifestations in the form of an undivided whole, having no name and form, but present only as a mere on-looker and animates them all, is Atma indeed. In this way the unmanifest and undivided Atma comes to be viewed as many Atmas, on account of the manifestations it is subjected to.

एकात्मसिद्धिमेवाहमुक्त्यवाक्यैर्यथाक्रमम् । सूर्यआत्मेतिवाक्येनाथर्वकेपरमार्थतः ॥
 स्वतस्सिद्धात्मानमेव सूर्योपनिषदिक्रमात् । सूर्योपाधिपुरस्कृत्यगौणवाक्यात्स्वभावतः ॥
 वत्साक्षिण्यात्मसंसिद्धिरुक्तस्यादिति निर्णयः ॥

एवमेकात्मसंसिद्धिमुक्त्वाशास्त्रप्रमाणतः । तदात्मलक्षणमपि संग्रहेणाद्यकीर्त्यते ॥

॥ तदुक्तमात्मव्याख्याने ॥

जगत्सृष्टिस्थितिलयकारणत्वंतथैवहि । व्यापकत्वमसंगत्वमद्वितीयत्वमेवच ॥
 निरधिष्ठानरूपत्वंनिर्गुणत्वमतःपरम् । सर्वाधिष्ठानरूपत्वंनिरंशत्वंस्वभावतः ॥
 सच्चिदानन्दरूपत्वंनित्यत्वंचयथाक्रमम् । एतेदशस्वभावेनयस्यास्तिमततस्वतः ॥
 स आत्मेतिविशेषेणज्ञानिभिःपरिकीर्तितः ॥

All that is said so far comes to this. The minor passages of Sruti, recognising the Upadhi of name and form for the sake of argument, speak of manyness of Atma, but establish only the unmanifest aspect or oneness (of Atma) in the Major passages.

Similarly though the minor passage 'Surya is Atma' of the Suryopanishad of Atharvana Veda apparently admits the secondary aspect of Atma to Surya (the sun), on account of the Upadhi, it is the primary aspect of oneness or absolute Atma that is meant by the Sruti.

Having thus established the applicability of the term Atma to Surya also, the definition of, or the characteristics essential to Atma will be stated.

According to Atma Vyakhyana, an authoritative work, the characteristics of Atma are that it should be :—

- (1) both the material and instrumental cause of creation, preservation and destruction of the Universe,
- (2) all-pervading like Akasa,
- (3) non-attached like sunlight,
- (4) one like bliss and happiness of sound sleep (Sushupti),

अन्यच्च ॥

निमित्तत्विमुपादानकारणत्वंतयैवच ॥ साक्षित्वंचैवक्रमशोजगत्सृष्ट्यैवकेवलम् ।
स्वेमहिम्निस्वयंस्थित्वास्वसिन्नेवस्वयंक्रमात् । स्वेक्षणेनस्वशक्त्याचस्वप्रवेशेनतत्त्वतः ।
उपाधिनिरुपाधिभ्यांयदात्मेतिस्वभावतः । तदात्मेतिविशेषेणप्रवदन्त्यात्मवेदिनः॥

अपिच ॥

यदाप्नोति यदादत्तेयुच्चात्तिविषयानिह । यच्चास्यसन्ततोभावः तस्मादात्मेतिकीर्त्यते ॥
इत्यादि ॥

- (5) undivided like Gagana (the sky),
- (6) without support (Adhishtana) (to it) like bliss of Ananda,
- (7) without attributes like Tureeya,
- (8) support (Adhishtana) to everything like Kutastha,
- (9) Sat, Chit and Ananda like self realisation,
- (10) eternal like Akshara.

Thus the learned declare that what possesses all these ten qualities in itself naturally and eternally is known as Atma.

Another authority, Viswambhara Acharya observes that the potentiality which, for the sake of propagating creation, has within its own glory the three qualities viz., of being the instrumental cause by the Ikshana upadhi, of material cause by the Maya upadhi, and of being only a mere on-looker in the universe, which is evolved by the above two causes and into which it enters and pervades throughout it, without being attached to it, is said to be Atma.

In determining the essential characteristics of Atma it is further stated that He who enters the universe and pervades throughout it, having no attachment with it, who is support (adhishtana) for the entire universe and holds it within Him, who, though non-attached with the universe still enjoys the

सूत्रादिमपदादेवमात्मसिद्धिप्रमाणतः । उक्त्वाधिष्ठानसंसिद्धिरिदानींसंप्रचक्षते ।
 सूत्रेपञ्चदश न्यायादधिष्ठानत्वमात्मनः । तृतीयपदतस्तद्वितीयपदतस्समृतम् ।
 तयोरादौ पञ्चदश प्रमाणोक्तिनिरूप्यच । पश्चादधिष्ठानसिद्धिरात्मनस्सन्निरूप्यते ॥

objects thereof on account of the Ahankara (Ego) Upadhi and of whom the universe is an inseparable nature is known as Atma.

Having thus established authoritatively the state of Atma (Atma Siddhi) suggested by the first part of the aphorism referred to above, we shall now describe how Atma comes to possess the condition of Adhishtana, as without this, the nature of Atma will only be imperfect ; nay, Atma cannot be as such without it.

The possession of the nature of Adhishtana is suggested in the second and the third parts of the aphorism. We shall explain the 15th axiom first, suggested by the third part and then the nature of Adhishtana, dealt with in the *second* part.

॥ १५ स्वतस्सिद्धन्यायसूत्रम् ॥

**शक्तित्रयं विधिष्टत्वेसत्येकस्मिन्नात्मन्य-
धिष्ठानान्तं राभावात्सर्वाधिष्ठानभूतं ब्रह्मात्म-
नास्याद्विवृताधिकारश्चस्वस्मिन् ॥**

बो. वृ. ॥

शक्तित्रयविशिष्टत्वादेकस्मिन्परमात्मनि । अधिष्ठानान्तराभावात्स्वस्मिन्नेवस्वभावतः ॥
सर्वस्याधिष्ठानरूपाद्ब्रह्माकारेणकेवलम् । विवृतत्वाधिकारत्वंसहजंस्यादितीरितम् ॥

॥ शक्तित्रयमुक्तमात्मशक्तिं विलासे ॥

अत्यद्भुतास्वतस्सिद्धानानाचित्रविचित्रकाः । शक्तयस्सन्त्यसंख्याकाश्चिन्मयेपरमात्मनि ॥
आत्मनस्सहजानित्यामहावेगप्रकाशकाः । प्रधानशक्तयस्तासुमुख्यास्तिस्त्रयैरीतिताः ॥
एतासु विवृतशक्तिः प्रथमेतिप्रकीर्तिता । द्वितीयाव्यापकाशक्तिश्चिच्छक्तिस्स्यात्तृतीयका ॥
इत्युक्तंचित्मुखानार्यैः एताण्वविशेषतः । प्रोक्ताश्शक्तित्रयमितिन्यायसूत्रेयथाक्रमम् ॥

THE FIFTEENTH AXIOM.

It is natural to Atma, in whom the three-fold Shakti is inseparably blended and who has no support but is support to everything else, to expand himself within himself, into the form of the universe, by virtue of his own power. This is the axiom.

BODHANANDA'S COMMENTARY.

The absolute Paramatma is all powerful. There is no adhishtana for him but he is adhishtana of all. Therefore, naturally, he can extend himself in himself into the form of the universe, by means of the threefold potentiality (Shakti Traya) ever present in him.

The three powers included in this threefold potentiality (Shakti Traya) are named and their work explained by Chit-sukhabacharya, in a work known as Atma Shaktivilasa, thus:—

यथाजलतरंगाद्या अस्पृष्ट्वासूर्यमण्डलम् । तस्यनानाविकारेण कुर्वन्तिविवृतत्वताम् ॥
 तथैवविवृतशक्तिस्तमस्पृष्ट्वामहेश्वरम् । विवृतत्वंकल्पयति तस्त्रैवपरमात्मनः ॥
 तथैवव्यापकाशक्तिर्निश्चैतन्येजडात्मके । विवृताकाररूपेस्मिन्जगतिस्वीयतेजसा ॥
 प्रविश्यासङ्गभावेनतद्व्याप्याकाशवत्क्रमात् । दत्त्वास्वसन्निधानेनचैतन्यंजगतस्वयम् ॥
 अहंकारंपुरस्कृत्यव्यवहारादिषुक्रमात् । स्वतःप्रवृत्तिसर्वत्रप्रकल्पयतिनान्यथा ॥
 चिच्छक्तिर्विवृताकारंजगदेतच्चैराचरम् । पश्चात्तदन्तर्बहिश्चस्वभामाभासयेत्पुनः ॥
 स्वप्रकाशादेवस्वस्मिन्साक्षिरूपेणसंस्थिता । सद्भावत्वमभावत्वंवस्तुनः पश्यन्निस्वयम् ॥
 यतस्वविवृतशक्त्याजगद्रूपंजडात्मकम् । यतोव्यापकशक्त्याथजगच्चैतन्यरूपकम् ॥
 सर्वभासकत्वंचस्वचिच्छक्त्यायथाक्रमम् । यतोभवेत्ततोधिष्ठानान्तरत्वंपरात्मनः ॥
 द्वितीयवस्त्वभावत्वान्नास्त्यैवेतिनिरूपणात् । स्वतोधिष्ठानसंसिद्धिर्घटत्येव न संशयः ॥
 एवंनिरूप्याधिष्ठान सिद्धिकारणमात्मनः । अथेदानीमधिष्ठानलक्षणं संप्रचक्षते ॥

The self-effulgent and absolute Atma has myriads of wonderful powers, which are natural, inasmuch as they are irrespective of cause and effect and have peculiar forms. Of these infinite powers the three viz., Vivruta, Vyapaka and Chit Saktis, which are inseparable from Atma, which are eternal and which are of extraordinary power and radiance, are the most important. In the Nyaya Sutra (aphorism) referred to above, it is these three powers that are mentioned as "Shakti Traya".

Having thus explained the three powers, now their work will be described.

Just as ripples, without touching the sun reflected on a sheet of water, cause the sun to appear in an expanded form, other than his natural state, so also the Vivruta Shakti, without touching Paramatma who is its adhistana, causes Atma to appear in an expanded form, other than his natural state. This is the function of Vivruta Shakti.

The Vyapaka Shakti, being non-attached, enters into the universe which is emanated by Vivruta Shakti and which is inert and inanimate, pervades throughout it just like Akasa and

तदुक्तमात्मतत्त्व प्रकाशिकायाम् ॥

अधिकृतजगत्सर्वं वर्ततेयत्स्वभावतः । तदधिष्ठानमित्याहुःशस्त्रेषुबहुधाबुधाः ॥

अन्यच्च ॥

यद्विभर्तिजगत्सर्वजगद्यन्नविभर्तिहि । तदधिष्ठानमित्याहुर्ज्ञानिनस्तत्त्वदर्शिनः ॥

इतिसृष्टिविलासे ॥

अन्यच्च ॥

यत्स्वमायोपाधिशक्त्याजगदेतच्चराचरम् । सृष्ट्वातदन्तरेपश्चादन्तर्यामितयास्वयम् ॥

स्थित्वासंधार्यतेसर्वमसंगत्वेनकेवलम् । तदेवाधिष्ठानमितिप्रवदन्तिमनीषिणः ॥

इतिप्रपञ्चलहर्याम् ॥

अपिच ॥

निमित्तत्वमुपादानत्वमात्मत्वंतथैवहि । निराधारस्वभावत्वंसर्वाधारत्वमेवच ॥

सर्वावभासकत्वंचयस्यास्तिसततस्वतः । तमेवाधिष्ठानमितिप्रवदन्तिमनीषिणः ॥

by its mere presence, renders it animate and in all beings gives rise to Ahankara (egotism) and volition in all their actions. This is the work of Vyapaka Shakti.

Then again the Chit or Prakasa Shakti of Atma pervades the entire animate and inanimate Universe, illuminates it in and out by means of its own radiance, and exists therein as a mere on-looker, observing the presence or absence of things. This is the work of Chit Shakti.

Thus, that which expands into the form of the inanimate universe with its Vivruta Shakti, animates it with its Vyapaka Shakti, and illuminates it with its Chichakti, is undoubtedly its own Adhishtana, since there exists nothing beyond it and is Adhishtana of the universe as well.

Having thus established how Paramatma comes to possess the nature of Adhistana, now its definition will be given.

DEFINITION OF ADHISHTANA.

Atma Tatwa Prakasika, an authoritative work declares that that which is the natural support of the universe, is known as Adhishtana.

एवंसूर्योपनिषद्वाक्यप्रमाणानुसारतः । सूर्योपाधिपुरस्कृत्यसाक्षिणःपरमात्मनः ॥
 श्रुतिवाक्यप्रमाणेनन्यायसूत्रबलेनच । उक्त्वाधिष्ठानसंसिद्धिमात्मसंसिद्धिमेवच ॥
 अथेदानींसूर्यकिरणशक्तिसंयोजनक्रमात् । ब्रह्माण्डादिक्रमादेतज्जगत्सृष्टिविशेषतः ॥
 आलोक्यपूर्वशास्त्राणियथामतिनिरूप्यते ॥

Another work, Srushti Vilasa, lays down that that which holds the universe and which the universe cannot hold, is Adhishtana.

• Prapanchalahari, another (scientific) work, says that that which, by its Maya upadhi, gives rise to the universe and which being latent in and non-attached to it, holds it, is adhishtana.

Lastly, the learned proclaim that that which is both the material and instrumental cause of the universe, which has all characteristics necessary to Atma, which, having no support, is support to everything and which illuminates everything is Adhishtana.

Thus on the authority of the Suryopanishad and other passages of Sruti and of the Nyayasutra, the state of Atma (Atma Siddhi) and the state of Adhistana (Adhistana Siddhi) have been established for Surya (the sun), recognizing the Surya Upadhi for Atma. In other words, it is Atma that functions through Surya. We shall now proceed to describe the creation caused by the action of the Solar rays.

॥ सृष्ट्यधिकारः ॥

• ॥ सूत्रम् २ ॥

॥ तत्सृष्टिरसंगाच्चिच्चैत्याभ्यामूर्णनाभिवत् ॥

• ॥ बोधानन्दवृत्तिः ॥

खेरविष्ठानसिद्धिमात्मसिद्धिचसंग्रहात् । एवमुक्तवाजगत्सृष्टिक्रममद्यनिरूप्यते ॥
सृष्टिप्रबोधरूपदान्यस्मिन्वत्त्वार्यथाक्रमम् । सन्नितेष्वादिमपदादात्मसृष्टिः प्रदर्शितः ॥
सृष्ट्यामसंगभावत्वमात्मनोक्तद्वितीयतः । निमित्तोपादानशक्तिद्वयमुक्ततृतीयतः ॥

APHORISM 2.

Since Atma is Asanga or non-attached to everything, his creation is conducted through (his) chit and Chaitya Saktis, just like the weaving of a web by the spider. This is the aphorism.

BODHANANDA'S COMMENTARY.

By the first aphorism Atma Siddhi and Adhishtana Siddhi have been established for Surya. Now the process of Creation of Atma through Surya, will be explained in this second aphorism.

This aphorism consists of two words expounding the process of Creation. The first of them denotes the process of creation of Atma, the second expresses non-attachment of Atma to the creation, the third signifies the two causes Nimitha and Upadana or the Instrumental and material causes for the propagation of creation and the fourth gives an illustration (parallel) to show that the creation by Atma is similar to the web woven by a spider.

Having thus explained the four words of the aphorism now we shall give its purport as follows:

THE PURPORT:—

To manufacture a certain article in this world, the agent or the doer and the materials of and with which the article is to be prepared are essential. Similarly, when we consider the

चतुर्थपदतत्सृष्टेर्दृष्टान्तस्सन्निदिशितः । एवंपदार्थःकथितस्संग्रहार्थो निरूप्यते ॥
 चिच्छक्तिश्चैत्यशक्तिश्चैत्यात्मशक्तिर्द्विधामता । ताभ्यामसंगभावेनपरमात्मानिरञ्जनः ॥
 अनेककोटिब्रह्माण्डाकारेषैतज्जगत्स्वयम् । स्वसन्निधानमात्रेणैवोर्णनाभिरिवासृजत् ॥
 सूत्रस्यैवंसमासेनसामान्यार्थो निरूपितः । अथेदानींविशेषार्थस्सम्यगत्रनिरूप्यते ॥

चिच्छक्तिस्सप्तमन्यायादात्मनोघटतिस्वतः । चैत्यशक्तिस्सप्तदन्यायतस्संप्रकीर्तितः ॥
 चित्वंचिच्छक्तिमत्त्वंचप्रदर्शयितुमात्मनः । स्वतस्सिद्धन्यायसूत्रद्वयमत्रनिरूप्यते ॥

authorship and the materials and instruments of and with which the universe is created, the Sruti " O Kasyapa, your production (i. e., the Universe) is very fine" expounds that the Self in the form of the sun, namely Kasyapa, is the agent and that the two energies of Atma i.e., Chit or an energy which exists eternally in Atma and Chaitya or an energy which appears at times and disappears at other times, are the materials and instruments. It further states that just as the spider, with the materials and instruments of its own body, weaves its web having no attachment with it, so also Paramatma creates the universe consisting of myriads of Brahmandas with the two above mentioned energies inherently present in him and in a manner having no attachment whatsoever to the thing created.

A detailed explanation of the same runs as follows:—

The fact that the two energies, Chichakti and Chaitya Shakti are natural faculties of Atma, is established thus.

For this purpose two axioms, (the 7th and the 17th) have been mentioned here, of which the former establishes that Atma not only is of the nature of Chit but also possesses Chichakti, while the latter (17th) establishes that he possesses Chaitya Shakti also. We shall first take up the 7th axiom and then the 17th one.

The word Chichakti dealt with in this aphorism, is explained thus.

॥ ७ स्वतस्सिद्धन्यायसूत्रम् ॥

**स्वयंप्रकाशत्वे सत्येन ह्यस्मिन्वास्तुनि स्वप्रका-
शाच्चित्तुं सर्वावशासकत्वाच्चिच्छित्तुं च
सहजं स्यात्सूर्यवत् ॥**

॥ बोधानन्दवृत्तिः ॥

रवेस्वयंप्रकाशत्वं यथा तद्वत्स्वभावात् । सर्वावभासकत्वं सहजं स्यात्स्वभावतः ॥
तथैवात्मनि चित्तुं च चिच्छित्तुं च मपि क्रमात् । स्वतत्संभवतीत्यस्मिन्सूत्रे सम्यक्प्रदर्शितम् ॥
तदर्थं विशदीकृत्य सतां मोदाय केवलम् । समालोच्य यथाशास्त्रं संग्रहेण प्रकीर्त्यते ॥
स्वयंप्रकाशाखंडैकरसब्रह्मैव केवलम् । सूत्रेऽस्मिन्वस्त्विति प्रोक्तं संकेतत्वेन च क्रमात् ॥
द्वितीयवत्स्वभावत्वात् स्वान्यत्तस्यैव वस्तुनः । स्वयंप्रकाशमानत्वमेकत्वं च यथाक्रमम् ॥
घटयेव स्वभावेन श्रुतिमानानुसारतः । यतस्स्वयंप्रकाशत्वं ततश्चित्तुं परात्मनः ॥
सर्वावभासकत्वं तच्छक्त्यस्मात्स्वभावतः । तस्माच्चिच्छित्तुं च मपि ब्रह्मणस्सहजं भवेत् ॥

Chit + Shakti = Chichakti. Chit means self effulgence ; and Shakti means the inherent power of this effulgence, which illuminates the entire universe.

This axiom aims at establishing the presence of these two Characteristics in Atma, thus.

THE SEVENTH AXIOM.

If in a certain thing the two qualities viz., self-effulgence and capability of illuminating everything else with its effulgence are inherently present, it is evident that it possesses the two qualities viz., Chit by virtue of its being self-effulgent and Chichakti by virtue of its being capable of illuminating everything else. This is the bare meaning of the aphorism.

The axiom aims at establishing that Atma naturally possesses the two characteristics, Chit and Chichakti, by presenting the illustration of the sun, who has the two characteristics viz.,

यदुक्तं सूर्यवदितितद्वृष्टान्तमिति स्मृतम् । स्वयंप्रकाशमानत्वे सत्येकस्मिन्परात्मनि ॥
 द्वितीयवस्त्वंभावत्वादेकत्वं तद्वदेव हि । सर्वाभासकत्वाच्चिच्छक्तित्वमपि चक्रमात् ॥
 प्रकाशान्तरराहित्यात्स्वयंभानत्वमात्मनः । स्वभावादेव सहजमिति न्यायनिरूपणम् ॥
 एवमुक्तं वासतसमन्यायनिर्णयमतः परम् । तथासप्तदशन्वायनिर्णः परिकीर्त्यते ॥

॥ १७ स्वतस्मिद्धन्यायसूत्रम् ॥

**॥ यत्र चिच्छक्तिस्तत्र चैतयशक्तिसंभवस्सहजं
 स्याद्बीजांकुरवत् ॥**

॥ बोधानन्दवृत्तिः ॥

बीजेयथांकुरोत्पत्तिस्सहजं स्यात्तथैव हि । स्वतोस्तियत्र चिच्छक्तिस्तत्र कर्मविपाकतः ॥

self-effulgence and capability of illuminating everything else, thus.

It is the self-luminous, undivided and absolute Atma itself that is indicated by the word 'Vastu' or thing in this axiom. As there exists nothing except this 'thing', it naturally follows that it is both self-luminous and one (without a second), as Sruti declares it to be. This one without a second thing or Atma, therefore, comes to possess naturally the two qualities viz., Chit and Chichakti as explained already.

The expression 'Suryavat' or like the sun in this aphorism only gives an illustration to the point under explanation.

Thus the 7th aphorism expounds the fact that Atma is naturally one without a second inasmuch as there is nothing except it, that it is self-effulgent as there is no luminous object except it, and that it naturally possesses Chichakti by virtue of its being capable of illuminating everything.

Having thus explained the 7th axiom we shall take up the 17th one.

चैत्यशक्तेः संबोधि सहजं स्यादिति रितम् । तस्माच्चिच्छक्तिवच्चैत्यशक्तिरप्युत्पन्नस्त्वतः ॥
सहजं स्यादिति सप्तदशन्यायविनिर्णयः । शक्तिद्वयं चात्मनोक्तमेवं न्यायद्वयेन हि ॥

THE SEVENTEENTH AXIOM.

Just as it is natural that a sprout comes out of a seed, of course under suitable conditions, so also it is natural that Chaitya Sakti evolves out of Chichakti on account of the ripening of the fruit of actions (Karma Vasanas) of creatures, which were melted in it (Chichakti) during the past dissolution (pralaya).

Thus the 17th axiom establishes that Paramatma naturally possesses Chaitya shakti as well as Chichakti.

॥ ३. सूत्रम् ॥

॥ तस्यां र दीषत्स्पन्दनमग्निषोमाभ्यां तच्चैत्य शक्तिरिति ॥

॥ बोधानन्दवृत्तिः ॥

एवंन्यायद्वयाच्छक्तिद्वयमुत्तवापरान्मनः । इदानीं चैत्यशक्तिस्वरूपमत्र निरूप्यते ॥
चैत्यशक्तिस्वरूपप्रबोधकानियथाक्रमम् । पदानिसप्तसूत्रेस्मिन्निर्णितानियथाविधि ॥
तेष्वादिमपदाच्चिच्छक्तिस्वरूपः प्रदर्शितः । द्वितीयपदतः प्रोक्तं स्पन्दनस्य विशेषणम् ॥
तृतीयपदतश्शक्तेरीषत्स्पन्दनमीरितम् । चतुर्थपदतोग्निषोमशक्तिद्वयमीरितम् ॥
तथैवपञ्चमपदादुक्तं चैत्यविशेषणम् । तदुत्तरपदाच्चैत्यशक्तिरूपः प्रदर्शितः ॥

3RD APHORISM.

This aphorism explains the nature of Chaitya Shakti.

In this aphorism there are 7 words determining the nature of Chaitya Shakti. The first word describes the nature of Chichakti. The second is an attribute to the next word, Spandana. The slight agitation (Ishat spandana) of Chichakti is denoted by the third word. The fourth word represents the two powers of Agnishoma Shakti. The fifth word qualifies the word, Chaitya. The sixth describes the nature of Chaitya Shakti. The seventh word completes the predication, the verb being understood.

Having thus divided the aphorism into simple words we shall now explain the general sense.

In every Kalpa the universe has three stages, creation, preservation and dissolution. Of these, the third stage, dissolution is so called because, in it, the whole created universe dissolves or disappears in Prakriti, just as things in the dark. At this stage the Karma Vasanas * or fruits of actions of all

* 'Karma Vasanas' are the instincts of all actions done by creatures in the Universe till dissolution, which remain pictured in their minds.

तथैवसप्तमपदात्तत्प्रकारो निरूपितः । एवंपदार्थमुक्तवाथसूत्रस्यविधिवत्क्रमात् ॥
 क्रोडीकृत्ययथाशास्त्रमेतेषामर्थनिर्णयः । अथेदानींसंग्रहेणययामतिनिरूप्यते ॥
 प्रपञ्चप्रलयेसर्वप्राणिनां कर्मवासनाः । शुक्लकृष्णरजोरूपाः स्वभावेनैष्यन्त्यक् ॥
 प्रविश्याग्नीषोमशक्त्यां साम्यावस्थां व्रजन्ति हि । तैस्सहाग्नीषोमशक्तिश्चिच्छक्त्यामयलीयते ॥
 तदन्तर्गतचित्प्रतिबिम्बश्चापिस्वयं क्रमात् । बिम्बरूपेचितिततस्वस्वरूपेण लीयते ॥
 पश्चादग्नीषोमशक्त्यन्तर्गतकर्मवासनाः । क्रमात्कालविशेषेणपरिपक्वंगतायदि ॥
 अत्यन्तसूक्ष्मरूपेणविकासत्वं भजन्त्यथ । पश्चात्तद्वासनास्वस्वशक्तिभिः कर्मगर्भितैः ॥
 चिह्नीनप्रतिबिम्बांशुप्रकाशांशमतः परम् । बालाग्रशतभागस्यदशैकांशप्रमाणतः ॥
 क्रमात्सूरणमार्गेणाकर्षयन्तिस्वभावतः । पश्चात्तच्छक्तिसंयुक्तास्तेग्नीषोमीयमण्डलम् ॥

creatures in the universe, enter into Moola Prakriti or Agnishoma shakti. These fruits of actions being of the three qualities Satwa, Raja and Tama enter severally into the Agnishoma Shakti in their innate colours, white, red and black and exist there in three equal aggregate portions.

Thereupon these fruits of actions dissolve in Agnishoma Shakti or Moola prakriti, which in its turn dissolves in Chichakti. The reflected image of Chit (Chit Pratibimba) † which mixed with Agnishoma Shakti gets dissolved in Atma who is in the form of Chit.

The fruits of actions of all creatures, which had dissolved in Agnishoma shakti, undergo the process of fructification throughout the period of dissolution (Pralaya), and when this period, as fixed by mathematical calculations, comes to a close, they become fully ripened (become acquainted with the way of doing actions in the next creation) and then begin to bloom or expand very slightly. They then get ready for creation and attract, with their forces enveloped by action, the light of the reflected image of Brahma (Atma), as much as one-tenth of a hundredth part of the tip of a hair, through Soorana marga or a passage pointing the direction for creation.

† Chit Prathibimba is the image of Atma, seen in Prakriti just as the image of an object reflected in a looking glass.

प्रविशन्त्यतिवेगेनस्वनीडमिवपक्षिणः । तत्रत्याग्नीषोमशक्तिद्वयंव्याप्यद्विधाक्रमात् ॥
 स्वसन्निधानमात्रेणविभज्याययथाक्रमम् । वामेसोमंदक्षिणेर्गिनस्थापयामासतुःक्रमात् ॥
 पश्चात्तयोर्भ्रामणत्वंविंशतिन्यायतोभवत् । तद्भ्रामणप्रमाणंतुसंख्ययात्रप्रदृश्यते ॥
 शतकोट्यष्टलक्षत्रिसहस्रविंशतंक्रमात् । निमेषमात्राद्भ्रामणमग्निशक्तेस्त्वभावतः ॥
 तथैवसोमशक्तेश्चप्रभवत्यतिवेगतः । एवमग्नीषोमीयमण्डलेस्मिन्भ्रमणंतयोः ॥
 यदाभवतिवैचित्र्यात्तदाचिञ्छक्तिरंजसा । स्वान्तर्गताग्नीषोमीयशक्तिभ्यांक्षुभिताभवेत् ॥
 तेनेवत्स्पन्दनंतस्यांभवत्ययन्नपूःमतः । यदीषम्पन्दनंतस्यांतदेवात्रविचारतः ॥
 चैयशक्तिरितिप्रोक्तंसूत्रेस्मिन्संप्रदायतः । एवमुक्तवासंग्रहायैसप्रमाणंयथाविधि ॥
 अथेदानींविशेषार्थस्त्वयगत्रनिरूप्यते । उक्तमग्नीषोमशक्तयोर्भ्रमणंन्यायसूत्रतः ॥
 तद्विंशतिन्यायसूत्रंविचित्र्यात्रप्रचक्षते ।

॥ २० स्वतस्सिद्धन्यायसूत्रम् ॥

शक्तेश्चलनत्रैविध्यंस्वोष्णतरंगघर्षणादाग्निवत्

They, then mingling with the light of Atma, enter into Agnishoma Mandala very rapidly, just as birds enter into their nests. Afterwards they, by their mere presence, divide the mixture of Agnishoma powers of that globe into two viz., Soma and Agni and locate the former at the left side and the latter at the right side of that Agnishoma globe. Thereupon according to the 20th axiom these two powers begin to revolve separately, each making one crore, eight lakhs, three thousand and three hundred revolutions per second. By the rapidity of the revolution of these Agni and Soma powers in the Agnishoma mandala, Chichakti (on account of its contact with the former) also gets a slight agitation (Ishat Spandana). It is the slight agitation thus produced in Chichakti, that is referred to as Chaitya Shakti in the above aphorism.

20TH AXIOM.

It is natural to Chichakti, by virtue of the friction of its hot waves, to give rise to three kinds of powers just like fire.

॥ बोधानन्दवृत्तिः ॥

रूपद्रव्यमवेच्छकेर्गोहितप्रथमं तयोः । द्वितीयरूपं च पञ्चमिति प्राहुर्मनीषिणः ॥
यञ्जोहितवत्त्वं स्यात्तदुंशक्तिरिति स्मृता । तपनत्वात्तापनेति प्रवदन्ति मनीषिणः ॥
अवज्ञातापसंयुक्तानियासूक्ष्मस्वरूपिणी । स्वभावात्तपनाशक्तिस्तत्र व्याप्यतिष्ठति ॥
शक्तेश्च उन्नत रूपं यत्तस्त्रीशक्तिरिति र्यते । तपनोद्गारितोष्णस्वरूपासेति प्रकीर्तिता ॥
तपनाशक्तिरात्रिंशदेतच्छतयां स्वभावतः । उष्णाधिक्यं भवेत्तस्मात्तरंगास्सूक्ष्मरूपिणः ॥
एकादशोत्तरत्रिंशत्संख्याकास्सर्वतोमुखाः । छोटिकावच्छिन्नकाले प्रभवन्ति यथाक्रमम् ॥
त्रिविधं वलनं पश्चात्तत्सर्वगतः क्रमात् । भवत्येवाग्निवत्स्यामिति न्यायविनिर्णयः ॥

॥ तरङ्गलक्षणमुक्तं शक्तितन्त्रे ॥

प्रथमोद्गारिताशक्तिर्गोहितेन स्वभावतः । उच्यते तपन इति शास्त्रेषु ज्ञानवित्तमैः ॥
तपनत्रयमुष्णं स्यात्तदुष्णत्रयमुत्पन्नम् । पञ्चोत्पन्नात् तपनं स्याच्च उन्नतस्सन्दनत्रयम् ॥
तत्पञ्चवक्त्रं तरंगस्यात्तत्पूर्वलिङ्गमुच्यतेत्यादि ॥

COMMENTARY.

Chichakti is of two kinds viz., Lohita (Red) and Chapala; the former is said to be masculine and the latter feminine. The masculine power is also known as Tapanā, by virtue of its having the property of burning. Further it is motionless, very hot, indestructible, very subtle (Sukshma) and capable of pervading everywhere. The feminine power, on the other hand, is in the form of heat emitted out of Tapanā or masculine power. By the mere presence of this masculine power, excessive heat is produced in the feminine power (which is already in the form of heat) thereby giving rise to 311 fine waves per second, in all directions. By the friction of these waves (with each other), three kinds of motion are naturally produced in Chichakti, just as in fire. This is the explanation of the 20th axiom.

Shakti Tantra, an authoritative scientific work gives the following, regarding the magnitude of these waves.

॥ चलनत्रैविध्यमुक्तशक्तिन्त्रे ॥

बाह्यप्रयत्नस्त्रिविधशक्तिवेगोन्मुखे क्रमात् । प्रयत्नोन्मुखचलनश्चेति शक्तित्रयं बुधैः ॥

एतत्तरंगसंघर्षणादुष्णस्यैतिकीर्तितम् । वेगप्रयत्नमीषत्स्पन्दनमित्युच्यते बुधैः ॥

पूर्णस्पन्दनमेवात्र वेगोन्मुखमितीरिम् । वेगारंभश्चलनमित्युक्तं शास्त्रविदां विरः ॥

That much of power which is initially and naturally emitted by Lohita or the masculine energy is known as Tapanas.

3 Tapanas	make	1 Ushna
3 Ushnas	„	1 Ulbana
5 Ulbanas	„	1 Spandana
3 Spandanas	„	1 Chalana
5 Chalanas	„	1 Taranga
3 Tarangas	„	1 Linka

In this way the table continues.

The three kinds of powers produced in Chichakti are described in Shakti Tantra as follows.

The initial force (external attempt) necessary for any energy to generate a current (Pravaha), is of three kinds viz., Prayatna (attempt), Unmukha (preparation) and chalana (motion) which are known as Shakti Traya. They are produced by the friction of the waves of heat. The attempt (Prayatna) of the energy to set in speed (Vega) is said to be slight agitation (Ishat Spandana). This is the first stage of the force. Complete agitation is said to be preparation (Unmukha) of the energy and is the second stage of the force. When the current starts it is said to be (motion) Chalana and the third stage of the force.

The time-limit of each of these stages of the energy is stated as follows:—

Ishat Spandana (slight agitation) requires one second.

Vegonmukha or Preparation requires thrice the above or three seconds.

Chalana or motion requires twice the above or six seconds.

॥ कालप्रमाणमुक्तं त्रैव ॥

निमेषकालस्यादीषत्स्पन्दनस्य तथैव हि । वेगोन्मुखस्य तत्कालत्रयमित्युच्यते बुधैः ॥
 भवेत्तद्विगुणः कालः चलनस्य यथाक्रमम् । चलनत्रयकालोत्रवेगइत्यभिधीयते ॥
 तद्वेगकालदशकमतिवेगइति स्मृतः । अत्यन्तवेगोतिवेगदशकं भवति क्रमात् ॥
 तच्छतं स्यान्महावेगइति वेगविनिर्णयः । वेगात्पूर्वप्रयत्नं चलनत्रयमुच्यते ॥
 एवंपदद्वयं शक्तेरुक्तं न्यायप्रमाणतः । चलनत्रयस्वरूपमपि शास्त्राद्यथाक्रमम् ॥
 इति तृतीयसूत्रार्थस्प्रहेण यथाक्रमम् । कीर्तितं भवति न्यायप्रमाणादपि शास्त्रतः ॥

These three are external attempts for an energy to start in the form of a current.

THE TIME TABLE.*

3	Chalanas	make	1 Vega.
10	Vegas	„	1 Athi Vega
10	Athi Vegas	„	1 Atyanta Vega
100	Atyanta Vegas	„	1 Maha Vega

The Vega prayatna or the slight agitation of an energy described above is Chalana.

Thus the two kinds of Chichakti and the nature of the three kinds of chalana (agitation or motion) have been explained by the help of the above axiom and Shakti-tantra respectively.

The 3rd aphorism has thus been explained briefly on the authority of axioms, shastras and mathematical calculation.

* Different energies have different time-limits for these three stages. That which is mentioned here is applicable only in connection with the energy in Chichakti under explanation.

॥ ४ सूत्रम् ॥

॥ तद्वेगोत्क्षेपणात्तत्संभवस्तस्या द्वीपवत् ॥

॥ बोधानन्दवृत्तिः ॥

पूर्वसूत्रेचैत्यशक्तिरितीषत्स्पन्दनंस्मृतम् । तथास्मिन्नग्नीषोमशक्त्याविर्भावःप्रचक्षते ॥
 तदग्नीषोमशक्त्युदयबोधकपदानिहि । चत्वार्यस्मिन्निर्णिनानिपदच्छेदनतःक्रमात् ॥
 पूर्वोक्तचैत्यवेगोत्क्षेपणमादिपदात्स्मृतम् । द्वितीयपदतश्चाग्नीषोमशक्त्युदयस्मृतः ॥
 चिच्छक्तिरिरीतातेषु तृतीयपदतस्तथा । द्वीपदृष्टान्तमुक्तं याच्चतुर्थपदतःक्रमात् ॥
 पदानामर्थमुक्त्वाथसूत्रस्येवंयथाक्रमम् । तथेदानींसंग्रहेणसामान्यार्थो निरूप्यते ॥
 गुणत्रयप्रभेदेनचिच्छक्त्यांस्पन्दनत्रयम् । अभूत्क्रमात्स्वभावेनतान्समाहृत्यचित्स्वयम् ॥
 पृथक्कृत्वागुणान्वंगादेकीकृत्यस्वतेजसा । स्वशक्तिगर्भमध्येथस्थापयामाससत्त्वरम् ॥

THE FOURTH APHORISM.

By the forcible jutting up of the three energies of Chaitya Shakti, Agnishoma Shakti evolves, just as an island comes up in the ocean by the explosion of the forces of Koorma Shakti. This is the fourth aphorism.

THE COMMENTARY.

In the previous aphorism it is established that the slight agitation (Ishat Spandana), evolved in Chichakti, is Chaitya Shakti. Now in this 4th aphorism the process of manifestation of Agnishoma Shakti will be dealt with.

This aphorism consists of four words determining the emanation of Agnishoma Shakti. The first of these words denotes the rapid flow (vega) of Chaitya Shakti, already mentioned. The second word determines the origin of Agnishoma Shakti. The third word refers to Chichakti. The fourth, cites the parallel of the island (Dvipah). This is the meaning of the words in the aphorism.

THE GENERAL SENSE.

In Chichakti, on account of the three different kinds of gunas or properties viz., Satwa, Raja and Tama, three kinds of

तथैवतद्वेगप्रयंचाहृत्यस्वीयतेजसा । एकीकृत्योर्ध्वप्रदेशे उत्क्षिपद्वेगतस्ततः ॥
 पश्चात्तिवर्णसंयुक्तासृष्टिबीजस्वरूपिणी । पूर्वोक्ताग्नीषोमशक्तिस्तद्वेगोत्क्षेपणात्स्वयम् ॥
 कूर्मशक्त्युक्षेपणेनयथाद्वीपोदयस्तथा । प्रादुर्बभूवपूर्वोक्तचिच्छक्त्या पूर्वकल्पवत् ॥
 सूत्रस्यैवंसंग्रहेणसामान्यार्थो निरूपितः । इदानीं तद्विशेषार्थः किंचिदत्र प्रकीर्त्यते ॥

॥ द्वीपलक्षणमुक्तं द्वीपविवेके ॥

द्विधा विभज्योदकं यदूर्ध्वमागच्छति ततः । तद्वीप इति शास्त्रेषु प्रवदन्ति मनीषिणः ॥

॥ उक्तं हि नामार्थकल्पे ॥

॥ १३ परिच्छंदः, ९ सूत्रम् ॥

॥ द्वीपः पञ्चवर्णविसर्गशक्तिसंमेलनादिति ॥

motion are naturally produced. The radiance of Atma attracted these motions, separated those gunas from the rapidity of those motions and then combining these gunas together by its radiance, located them in its own Sarvava Bhasaka or all-illuminating Shakti. Thereupon the radiance of Atma attracted the three kinds of Shakti of the above motions of the gunas, towards it by its own energy, combined them together and caused them to jet upwards rapidly. By the force of the emission of Chaitya Shakti, the said Agnishoma Shakti which is of the nature of the three colours white, red and black and which is in the form of the primordial seed of creation of the Universe was produced in Chichakti as in the previous kalpa, just as an island comes in to existence in the ocean by the forcible upward ejection of Koorma Shakti, a power which supports the terrestrial globe.

THE DETAILED EXPLANATION.

According to Dvipa Viveka, a scientific work, the formation of an island takes place thus. The learned proclaim, in Shastras, that what splits up the water of the ocean into two and comes up of its own accord is known as an island (Dvipah). Maharshi Atri, in his Namārtha kalpa gives the derivation and nomenclature of the Sanskrit word Dvipah, thus.

॥ विश्वंभरवृत्तिः ॥ .

सूत्रेवि सर्गमहितपञ्चवर्णाः प्रकीर्तिताः । तेविभज्यक्रमेणात्रगृह्यन्तिनिरूप्यते ॥
द्वीपशब्देर्द्वैव्पु अवि सर्गः परस्परम् । निळितास्सन्तिशास्त्रोक्तप्रकारेणयथाक्रमम् ॥
एतेसांकेतकाः प्रोक्ताश्शास्त्रेस्मिन्संप्रदायतः* । एतेषुवर्णसंकल्पतशक्तयषड्धनास्मृताः ॥
आसांसंमेलनाद्वारिगर्भेद्वीपः प्रजायते ॥

॥ तदुक्तंशक्तितन्त्रे ॥

कौर्मी वक्राक्षपीसिंहीतापनाबाडवोष्मिका । द्वीपोत्पत्तिकराह्येताः क्रमात्षड्धनशक्तयः ॥
इति ॥

॥ षट्शक्तिनिर्णयोक्तशक्तिमर्कखे ॥

कूर्मपीठाग्नेयक्षयमुखसप्ततिमेक्रमात् । द्व्यशीतिकोट्यष्टलक्षपञ्चोत्तरसहस्रकाः ॥

THE 9TH APHORISM IN THE 13TH CHAPTER OF NAMARTHA KALPA.

By the action of the six powers indicated by the five letters and a visarga (two ciphers one below the other) water gets solidified and becomes an island. (Dvipah).

The meaning of this aphorism according to the commentary known as Viswambhara Vritti is this.

There are five letters and a visarga in this aphorism indicating the powers which go to form an island (Dvipah) and they are explained one by one thus. The Samskrit word Dvipah is derived by coalescing the letters D, V, I, P, A, H.* In the style of aphorisms, the above letters have been mentioned technically instead of the island-forming powers themselves, which are called "Jalaghana Shaktis"

According to Shakti Tantra these shaktis are:--

- (1) Koorma Shakti (2) Kasyapee Shakti, (3) Simhika Shakti,
- (4) Thapani Shakti, (5) Badaba Shakti and (6) Aushnika Shakti.

*NOTE.—The English letter H is used here as being equivalent to the Samskrit visarga.

शक्तिप्रसारणकेन्द्रेखास्सन्तिपृथक्पृथक् । तासुद्विकोटिविंशल्लक्षाष्टाविंशतिकेन्द्रतः ॥
छोटिकावच्छिन्नकालेशक्तयःपञ्चकोटयः । प्रसरन्त्यतिवेगेनजलकोशान्तरंप्रति ॥
पञ्चलक्षत्रिसाहस्रसप्तोत्तरशतात्मिका । घनशक्तिःक्रमात्तासुदवर्णेनात्रवर्णिता ॥
तथाक्षयपसूर्यस्यपीठपूर्वमुखान्तरे । न्यर्बुदानांपञ्चदशकोटीनां दशपञ्चच ॥
लक्षाणांपञ्चविंशत्तिसहस्रैकशतंक्रमात् । शक्तिमावाहिकमुखकेन्द्रास्सन्तिस्वभावतः ॥
तेषुत्रिशतकोटित्रिलक्षद्विशतकेन्द्रतः । छोटिकावच्छिन्नकालेशक्तयश्शतकोटयः ॥
प्रवहन्त्यतिवेगेनजगद्भाष्यंप्रति । विंशत्कोटित्रिलक्षद्विसहस्रैकशतात्मिका ॥
ईकारेणक्रमात्तासुघनशक्तिर्निरूपिता ॥

Shakti Sarvaswa, a scientific work determines the number of powers that each of these six shaktis possesses and which of them has the property of solidifying water and forming islands. We shall explain the same here as briefly as possible.

The six shaktis mentioned above are essential for the propagation of creation of the universe. Each of them has several centres through which proceed myriads of forces of seeds of creation. In each of these centres multitudes of powers come to existence. To determine the six Ghana Shaktis out of them it is necessary that the localities through which they proceed should be fixed. We shall therefore give an account of these six shaktis hereunder :—

I. In the 70th of the power-producing compartments (Shakti Prasarana Mukha Kendras) present in the South-East direction (Kakshya) of the said Koorma Shakti there are 82,08,01,005 different Power-begetting centres. From the 2,20,00,028th of these centres, five crores of powers evolve in a second and proceed rapidly towards the recesses (Koshas) of Bhuta water, present in the interior part of the earth (Bhugarbha). Of these the 5,03,107th is known as a ghana Shakti. It is this shakti that is indicated by the letter D in the word Dvipah.

II. In the same way, at the 8th of the power-producing faces of the North-East part of Badahi power of Bhuta water,

अम्भूतबाडबापिशान्यक्ष्यमुखाष्टमे । द्विकोटिसलक्षाष्टसहस्रत्रिशतात्मिकाः ॥
 शक्तिप्रावाहिकमुखकेन्द्रास्सन्तियथाक्रमम् । तेष्वेककोटित्रिलक्षद्व्युत्तरशतकेन्द्रतः ॥
 निमेषावच्छिन्नकालेशक्त्यस्सप्तकोटयः । प्रवहन्त्यतिवेगेनजलगर्भान्तरंप्रति ॥
 एकलक्षाष्टसाहस्रदशोत्तरशतात्मका । घनशक्तिः क्रमात्तामुवकाशेणाभिवर्णिता ॥
 अन्यक्तजलपीठस्थक्ष्यदाय्यकेन्द्रतः । एकोनविंशत्कोटिचतुर्लक्षैकादशात्मकाः ॥
 शक्त्युत्पत्तिस्थानमुखकेन्द्रास्सन्तियथाक्रमम् । तेषुद्वादशसाहस्रद्व्यत्रिंशतिमुकेन्द्रतः ॥
 निमेषकालमात्रेणद्व्यत्रिंशल्लक्षशक्तयः । प्रवहन्त्यतिवेगेनजलकोशान्तरंप्रति ॥
 नवसाहस्रचत्वारिंशदुत्तरशतात्मिका । घनशक्तिः पवर्णेनतास्त्रपरिकीर्तिता ॥
 तापनाशक्तिपीठस्याग्नेयक्ष्यमुखान्तरे । शतकोटिचतुर्लक्षनवोत्तरशतात्मिकाः ॥

there are 2,07,08,300 power-begetting centres. From the 1,03,00,102nd of those centres, 7 crores of Shaktis are produced in a second and run towards the reservoirs of water existing in the interior of the terrestrial globe. The 1,07,110th of them is a ghana shakti and it is represented by the letter V in the word Dvipah.

III. Similarly in the front part of the base of the solar globe of Kasyapa, there exist fifteen Nyarbudas, fifteen crores, twentyfive lakhs, two thousand and one hundred centres from which shaktis proceed. In the 300,03,00,200th of these centres, one hundred crores of shaktis are produced in a second and rapidly proceed towards the recesses of water existing in the interior part of the earth. Of those the 1,01,107th is a ghana shakti. It is this ghana shakti that is symbolised by the letter I in the word Dvipah.

IV. Again from the 12,032nd out of 19,04,00,011th power-producing centres existing at the North West face of the base of Avyakta water, 32 lakhs of powers come into existence in a second and run towards the abodes of water in the interior part of the earth. The 9,140th of them is a ghana shakti and it is symbolically represented here by the letter P in the word Dvipah.

V. Then again out of the 100,04,00,109 power-producing centres existing in the South-East face of the base of Thapana Shakti, the 132nd gives rise to 32 crores of powers in a second and

शक्तिप्रवाहमुखकेन्द्रेखास्सन्तिह्रिकमात् । तासुद्वात्रिंशदुत्तरशतकेन्द्रमुखान्तरात्
 निमेषावच्छिन्नकालेद्वात्रिंशत्कोटिशक्तयः । प्रसरन्त्यतिवेगेनजलशक्त्यन्तरंप्रति ॥
 तासुद्विकोटित्रिलक्षोपरिपंचदशात्मिका । घनशक्तिःपकारोपरिस्थाकारेणवर्णिता ॥
 अकाशमिहिकाशक्तिकेन्द्रेखाष्टकोटयः । तासुद्वात्रिंशदुत्तरशतकेन्द्रमुखान्तरात् ॥
 अशीतिकोट्यष्टलक्षदशसाहस्रशक्तयः । प्रसरन्त्यतिवेगेनजलगर्भाशयंप्रति ॥
 एकोनविंशदुत्तरत्रयोदशशतात्मिका । घनशक्तिर्विसर्गेणतासुसम्यगुदाहृता ॥
 सूर्यदिक्कारवस्वग्निरुद्रसंख्याप्रमाणतः । उक्तषड्विंशशक्तीनामंशमेळनतर्जले ॥

they find their way rapidly towards the recesses of water in the interior part of the earth. The 2, 03,00015th of those Shaktis is a ghana shakti and is represented by the letter A symbolically in the word Dvipah.

VI. Lastly, the 132nd out of the 8 crores of power-begetting centres of Simhika shakti in the sky, gives rise to 20 crores, 8 lakhs and ten thousand shaktis which make their way towards the storages of water in the interior part of the earth. Of them the 1310th namely ghana shakti is pointed out symbolically by the Visarga in the word Dvipah.

The component parts of these ghana shaktis—

Out of every 100 parts of

(1) Koorma ghanashakti	.... 12 parts
(2) Kasyapi ,,	.... 8 ,,
(3) Simhika ,,	.... 27 ,,
(4) Thapana ,,	.... 8 ,,
(5) Badaba ,,	.... 3 ,,
(6) Oushnika ,,	... 11 ,,

These six shaktis in their component parts, mixing with the (Bhuta) water existing in the recesses in the interior parts of the terrestrial globe, naturally give rise to an embryo of an island (Dvipah) in the form of solidified water (Jalaghana) in that Bhuta water.

This is how the learned expound the manner in which an island (Dvipah) is formed in oceans.

भूर्भजलकोशेषु स्वतो जलघनात्मकः । गर्भो भवति तद्विपङ्गतिप्रादुर्भनीषिणः ॥
वाल्मीकिगणितरीत्यात्रोक्तशक्तिविनिर्णयः ॥

इत्यादि ॥

॥ ५ सूत्रम् ॥

॥ भवत्यस्यां त्रिगुणसाम्याच्चित्प्रतिबिंबाकर्षणं
दर्पणवदेकोनत्रिंशन्न्यायेन ॥

॥ बोधानन्दवृत्तिः ॥

पूर्वसूत्रे ग्नीषोमशक्त्या विर्भावः प्रकीर्तितः । तस्यां चित्प्रतिबिंबाकर्षणमस्मिन्निरूप्यते ॥
चित्प्रतिबिंबाकर्षणमबोवकपदानिहि । षण्णिर्णिता निविधिवत्पदच्छेदनतः क्रमवत् ॥
तत्रादिमपदादग्नीषोमशक्तिर्निरूपिता । द्वितीयपदतस्तद्वत्तद्विगुणत्रयमीरितम् ॥
एवं तृतीयपदतः प्रतिबिंबश्चित्ते स्मृतः । उक्तं दर्पणदृष्टान्तश्चतुर्थपदतः क्रमात् ॥
तत्रैव पञ्चमपदान्न्यायमानं निरूपितम् । भवतीति यदुक्तं त्यातत्क्रियापदमुच्यते ॥

Thus goes the detailed explanation of the above aphorism.*

THE 5TH APHORISM.

According to the 19th axiom, the image of the splendour of Brahma, on account of the equipoise of the three gunas, is produced in Agnishoma shakti, just as the image of an object in a looking glass. This is the aphorism.

BODHANANDA'S COMMENTARY.

In the previous aphorism the emanation of the Agnishoma shakti has been explained. In this aphorism the process of production of the image of the splendour of Brahma in it will be explained.

*NOTE.—The commentator says that the number and order of the above shaktis and their component parts have been calculated according to the system of mathematics by Valmiki (Valmiki Ganita.)

पदार्थमेवमुत्तवाधसामान्यार्योभुनोच्यते । रजस्सत्वतमोरूपगुणसाम्यत्वकारणात् ॥
 एकोनत्रिंशतिन्यायमनुसृत्यस्वभावतः । यथाभवतिखादित्यप्रतिबिम्बस्तुदर्पणे ॥
 भवत्यनोषोमशक्त्याप्रतिबिम्बश्चितेस्तथा । एवमुक्तवासंग्रहेणसामान्यार्थस्तथैवहि ॥
 इदानींतद्विशेषार्योयथाशास्त्रंनिरूप्यते । प्रतिबिम्बाकर्षणमित्युक्तंयत्सूत्रतःक्रमात् ॥
 तदेवात्रविशेषेणयथाशास्त्रंनिरूप्यते ॥

This aphorism consists of six words dealing with the process of production of the image or the likeness of Chit (Prati Bimba).

Out of these words, Agnishoma Shakti is indicated by the first word, the three gunas viz., Satwa, Raja and Tama present in the Agnishoma shakti, by the second word; the image of paramatma, by the third; the parallel of a looking-glass, by the fourth; and the 19th axiom, by the fifth word. The word '*Bhavati*' at the beginning of the aphorism is the predicate of the sentence. This is the meaning of the words in the aphorism.

The general sense of the aphorism is this.

According to the 19th axiom, since the three gunas are at par and motionless in Agnishoma Shakti, the image of the splendour of Atma is naturally produced in it even as the image of the sun shining in the sky, is reflected in a looking-glass.

Following is the detailed explanation of the same according to the shastras.

The third word in the above aphorism merely suggests the attraction or production of the likeness of the image of the radiance of Atma in the Agnishoma shakti. As a detailed explanation of that word, the process of taking or attracting the said image, will be explained here, on the authority of certain shastras dealing with the subject.

Roopakarshana Tantra, a treatise on reproducing the images or photography gives the following account.

॥ तदुक्तं रूपार्कषणतन्त्रे ॥

स्यावराणां जङ्गमानामष्टशक्तिभिरेव हि । स्याद्रूपार्कषणं यन्त्रात्प्रतिबिम्बरूपतः ॥

॥ उक्ताह्यष्टशक्तयस्सौदामिनीकलायाम् ॥

परिच्छेदः ७, सूत्रम् ११.

॥ र, व, स, न, भ, ज, य, क, शक्तिसंयोगात्प्रतिबिम्बाकर्षणम् ॥

॥ विश्वंभरवृत्तिः ॥

रकारात्सूर्यकिरणशक्तिस्मूत्रे निरूपिता । वकारात्षड्द्रावकाणां शक्तयस्संप्रकीर्तिताः ॥

By the action of the eight Shaktis, the likeness of any moveable or immovable object is produced on such things as glass. These eight shaktis are described in the 11th aphorism of the 7th Chapter of a Shastra, known as Soudamini Kala. In it these 8 Shaktis are indicated by as many alphabetical symbols. They are Ra, Va, Sa, Na, Bha, Ja, Ya, and Ka. Each of these letters indicates a power, having a particular property of attracting the likeness of any object. By the combined action of all these Shaktis, the likeness or the image of any object is attracted.

The nature of each of these 8 shaktis will be explained scientifically, according to the commentary known as "Viswambhara Vrithi" written by Viswambhara Acharya.

(I) The letter "Ra" in this aphorism stands for the shakti of the solar rays. (II) The letter "Va" represents the powers of the six acids such as Varchula dravaka, Paundraka dravaka, Pranakshara dravaka and so on. (III) The letter "Sa" denotes the following shaktis:—

(1) Tiryancha shakti or a power which has the property of upsetting the light present in darkness; (2) Drung nirodhana shakti or a power which obstructs the ocular vision from proceeding far but makes it to stop within and rotate; (3) Bhrama-

सकारेणांधकारस्यशक्त्योष्टनिरूपिताः । तथैवाकाशशक्तिश्चनवर्णेनत्रिविचिता ॥
 उग्गस्यशक्तयःपञ्चमकारेणाभिवर्णिताः । विद्युच्छक्तित्रयंतद्वज्जवर्णात्सन्निरूपितम् ॥
 यकारात्क्रमशोवायुशक्त्यष्टोडशस्मृताः । पञ्चप्राणसारशक्तयःककाराद्विनिर्णिताः॥
 एतास्वैकैकशक्तिसंयोगाद्यन्त्रादिवृक्रमात् । द्रावकालेपकादशोपरिसम्यवस्वभावतः ॥
 बिम्बस्यप्रतिबिम्बत्वंबिम्बवद्भवतिक्रमात् । प्राणसारजलेनाथसाळयित्वाःमुहुर्मुहुः ॥
 आतपेऽप्यापयेदेवंवारंवारंययाक्रमम् । यावत्संपूर्णरूपप्रकाशस्स्फुटतरंभवेत् ॥

nika shakti or a power which causes illusion, thereby making objects appear to be other than what they are ; (4) Rasavahika shakti or a power which separates the six rasas of food and makes them pervade all the organs (Indriyas) of the body ; (5) Kosha palana shakti or a power which frees the body, the organs, the prana, the mind, the intellect, and the seven humours of the body (Dhatu) from the 16 troubles or morbid affections viz., Ushna, Chapala, Manda, Klinna etc., which attack a being when at work and which, during the period of sleep, combining them all in Prana, gives them rest and which imparts to them the ten shaktis such as Paushnika and so on.

IV. The letter "Na" implies the Sarvavaksa shakti pertaining to Akasa i.e., a shakti which has all pervasive capacity.

V. The letter "Bha" means the five powers present in Ushna or heat and they are :—

(1) Dahaka or a power which has the property of burning, (2) Pachaka or a power having the property of ripening, (3) Vyapaka or a power having the property of pervasiveness, (4) Thapaka or a power having the property of heating and (5) Chalana or a power possessing the property of shaking or moving.

VI. The letter "Ja" stands for the three kinds of powers of electricity viz., masculine, feminine and neuter.

VII. The letter "Ya" denotes the 16 powers of air, such as Chalana (agitation), Vega (motion), Soshana (absorption) or desiccation), Apayana (refreshing), Utpatana (pulling) and so on.

तावत्प्रक्षालयेत्तद्वदातपेचापिनिक्षिपेत् । एतत्संस्कारतत्सम्यक्प्रतिबिम्बःप्रकाशते ॥
 एतद्रूपंस्थिरीकर्तुं पश्चात्सम्यग्यथाविधि । चूलीपुष्कलमञ्जूषद्रावकैस्सप्रमाणतः ॥
 संस्कारंकारयेत्सम्यक्पुनरशस्त्रविधानतः । चूलीद्रावकतस्सस्वारंपुष्करद्रावकात् ॥
 दशवारंचविधिवन्मञ्जूषद्राकात्पुनः । क्रमात्पञ्चदशवारंसम्यक्संस्कारयेत्तथा ॥
 सम्यक्प्रक्षालयित्वायत्रटिकार्धगुनःपुनः । आतपेविन्येत्पश्चाज्जम्पूर्णवटेन्यसेत् ॥
 पश्चात्तस्मिन्द्रावकाणांशतैकांशप्रमाणतः । मेळयित्वाकुंभिनीन्यासटिकायांद्वयथा ॥

. VIII. Lastly the letter "Ka" indicates the following powers.

1. The acid of Alum which contains 7 powers
2. „ Salt petre „ 11 „
3. „ Common salt „ 8 „
4. „ Borax „ 3 „
5. „ Impure soda „ 16 „

All these five substances are called "Pranaksharas or Lavanās" in this Shastra.

In this way the powers that are mentioned symbolically by the eight letters of the above aphorism have been explained.

By the combination of the 8 shaktis (one of these 8 sets of powers.) by means of machinery, an exact likeness of any moveable or immovable object is naturally reproduced on glass-plates suitably treated with the specified acids and so on. To make the image appear clearly, the glass-plate on which the image is taken must be washed in a mixture of 24, 16 and 9 parts respectively of the three acids viz., the acid of alum, the acid of bones of a bird known as Vavura in Sanskrit and the acid of seeds known as Jyotirmukhi in Sanskrit and then it must be kept in the sun. This should be repeated till the image looks bright. Thereupon to make it durable and everlasting it must be washed with the three acids viz., Chooli dravaka, Pushkala dravaka and Manjoo-sha dravaka, 7, 10 and 15 times respectively. That is to say it must be washed with Chooli dravaka once and then it must be exposed to the sun for 12 minutes. This washing and exposure

संस्थाप्यसार्धवटिकापर्यन्तं कमलाग्निना । संपाचयेद्देवदारुकाष्ठैरेव यथाविधि ॥
 ततस्तस्मात्तमाहृत्य पट्टवस्त्रेण वेष्टयेत् । तत्संगृह्य पुनश्शालीतुषामध्ये नियोज्य च ॥
 चन्द्रिकायां त्रयोदश्यादित्रिरात्रं न्यसेद्यदि । अच्छेद्यत्वमदाह्यत्वमनाशयत्वं तथैव हि ॥
 दुर्गमत्वं च क्रीडाद्यैर्वस्त्रिभिश्च तथैव च । लगुडाद्यैरभेद्यत्वं चिरं जीवित्वमेव च ॥
 संप्राप्य बिंबवत्प्रम्यक्प्रकाशति नमो शयः ॥

इत्यादि ॥

॥ एतदुक्तं शौनकीये ॥ तत्र तावच्छौनकसूत्रम् ॥

अथातस्स्थावरजङ्गमानां बिम्बस्य प्रतिबिम्बाकर्षणविधिं व्याख्यास्यामस्तैलदर्पणकाच
 मणिशिलालोहदारुजिन्मौक्तिकनवरत्न पत्रपुष्पफलत्वग्भृक्पञ्चभूतेषु पञ्चविंशत्संस्कारै

to the sun should be repeated 7, 10 and 15 times respectively in the 3 acids specified above. Thereupon the image should be kept in an earthen-pot containing 25 seers of water. To this water must be added three other acids, each one hundredth part of the water. The pot should then be placed on an oven or stove known as Kumbhini, belonging to the 9th class and heated for 36 minutes with Kamalagni (Flame appearing as a lotus) with Devadaru fuel. Afterwards the image should be taken out and be wrapped with a piece of silk cloth. It must then be buried in paddy-husk and exposed to the moonlight for three complete nights, commencing from the 13th day of the bright half of a lunar month. When this process is duly gone through, the resulting image will be such as cannot be cut into pieces, cannot be burnt in fire cannot be defaced, cannot be destroyed by beating with a hammer and so on but will be proof against insects or white-ants and will always be bright and fresh. There can be no doubt about it.

A similar account is given by Shaunaka also in an aphorism, thus.—

Some Shastras say that it is possible to get the likeness of a thing ordinarily on glass plates. This aphorism by Shaunaka

Note.—The three acids mentioned above are those that are extracted from the bones of three kinds of birds.

स्संस्कारितेषु शतयष्टकसंयोजनात्प्रतिबिम्बाकर्षणं भवति ॥ अथ संस्काराणि ॥ तैलानां नव,
जलानां द्वादश, दर्पणानां षोडश, मणीनां त्रयोदश, शिलानामेकादश, लोहानां पञ्चदश, दारु-
णामेकोनविंशति, जितां द्वाविंशति, मौक्तिकानां चतुर्दश, रत्नानामष्टादश, पत्राणां सप्तदश,
पुष्पाणां द्वाविंशतिः, फलानामेकविंशतिर्वस्त्राणां द्वाविंशतिस्त्वचां पञ्चविंशतिरभूकस्य दश
पृथक्पृथग्भूतानां पञ्चविंशतिः पञ्चविंशतिरिति ॥

enumerates 22 articles which can be employed for the purpose, even as glass. They are :—

- | | |
|---------------------------------------|---------------------|
| 1. Oil | 12. Leaves of trees |
| 2. Sea water | 13. Flowers |
| 3. Glass | 14. Fruits |
| 4. Kacha | 15. Leather |
| 5. Mani | 16. Cloth |
| 6. Stone | 17. Mica |
| 7. Metal | 18. Mud |
| 8. Wood | 19. Pure water |
| 9. Wax | 20. Light |
| 10. Pearl | 21. Air |
| 11. The 9 kinds of
precious stones | 22. Sky. |

Each of these 22 things, after undergoing 25 preparatory and purificatory treatments will be fit, like glass, for receiving the likeness of anything on it.

By the action of the 8 powers mentioned above, on any one of these articles after the necessary treatments, the likeness or image of any object is produced.

It has been said that each of the above 22 things has to undergo 25 treatments. Each of them requires these 25 treatments to be repeated a particular number of times. The following table shows the definite number :—

॥ अस्यार्थः ॥ विश्वंभरवृत्तिः ॥

रूपंरूपप्रतिरूपंभूवेतिस्ववाक्यतः । श्रुतिर्यदाह तत्सम्यक्शास्त्रोक्तविधिनाक्रमात् ॥

The substance.—

**How many times the 25 treatments
should be repeated—**

1. Oils	9 times
2. Sea water	12 „
3. Glass	16 „
4. Kacha	20 „
5. Mani	20 „
6. Stone	11 „
7. Metal	15 „
8. Wood	19 „
9. Vegetable wax	22 „
10. Pearl	14 „
11. Precious stones	18 „
12. Leaves	17 „
13. Flowers	22 „
14. Fruits	21 „
15. Cloth	22 „
16. Leather	25 „
17. Mica	10 „
18. Mud	25 „
19. Ordinary water	25 „
20. Light	25 „
21. Air	25 „
22. Sky	25 „

This is the explanation of the aphorism of Shaunaka.

The necessity of getting the likeness or photo of a person or an object has been explained by Viswambhara Acharya in his commentary known as Viswambhara Vritti, on the above Shaunaka aphorism, thus—

It is a time-honoured custom in this Karma Bhoomi of India that when a man belonging to one of the families on which the

सुविचार्ययथाकामंरौनकोभगवानृषिः । स्थावराणांजङ्गमानां विम्बरूपाकृतेःक्रमात् ॥

16 religious rites are imposed, returns to this land after living in a foreign country for 12 complete years, the family members, relatives and friends of that man are prohibited from seeing his face directly before making him see the image of his own face, on a sheet of oil, in a vessel, in a temple, in the presence of the God or Goddess of that place. Then his relatives and others also see that image, reciting the vedic passage which will be mentioned below. This done, they are permitted to see his face directly.

The reason for this practice is this : The forces of the air, the light, the water, the food, the earth, the sun, the moon, the stars, the clouds and so on of the alien land will have acted on the Shaktis of the man's Antahkarana Chatushtaya, the seven Dhatus (constituents of the body) such as the blood, the flesh, the skin and so on, whereby some of the original powers in him would have been displaced by the foreign ones. Now it is to be noted that every man has, towards his relations and friends, five natural faculties of feeling viz., (1) Abhimana or affection, (2) Love, (3) Viswasa i.e., trust or confidence, (4) Friendly attachment and (5) Feeling of ownership. Now the man, on account of his long foreign life will have lost the following 16 feelings out of these 5 faculties :—

1. Out of the 5 feelings of the faculty of affection, the 3 such as the feeling which tends a man feel pleasure or pain for the happiness or misery of his relations and friends, as if they had befallen on himself, etc.

2. Out of the 5 feelings of the faculty of love, the 3 such as kindly look, getting the hairs of the body erect and tears of joy and so on.

3. Out of the 4 feelings of the faculty of trust, the one that produces a peculiar pleasure, when a relation or friend comes face to face.

श्रुत्युक्तप्रतिबिम्बाकर्षणोपायविधिस्ततः । बालानांसुखबोधायसूत्रेस्मिन्वक्ष्यतिक्रमात् ॥

4 Out of the 9 feelings of the faculty of friendship, the 4 such as the attachment which the mind of a man feels, for his absent friend, by the mere remembrance of him.

5. Out of the 10 feelings of the faculty of the feeling of ownership, the 5 such as the identification of his family or community with himself, non-tolerance of the abuse of his family or community and so on.

Thus the above 16 feelings of the 5 faculties will have been corrupted or changed in the man returning from a foreign country in the manner described above.

The face of such a man should not be seen directly for fear that the foreign and consequently unnatural and unpleasant forces clinging to that man, may pass into these people also. In other words, unless an end is put to the evil tendencies of the man, acquired in and brought from the foreign land, his face should not be seen, lest the evil forces should influence these people also, causing them harm thereby.

Not only this. There is again a natural and mutual yearning on the part of both the man in a foreign country and his near and dear relations and friends in the native land, to see each other. This desire to meet each other increases at the rate of 5 Kakshyas or degrees every year and reaches the maximum of 60 degrees at the end of 12 years. If, at the end of that period, they see each other's faces directly and abruptly, the joy produced by the intense desire to meet, may grow beyond its limit and thereby the brain of either or both the parties may get disordered. Perhaps it may even end in fatal consequences or other serious troubles of brain.

The ceremony of looking each other's images in oil is very wisely prescribed by our fore-fathers, as an antidote to the above injurious effects. This process has the efficacy of dissolving, in the reflected images, the extra joy produced as said above and

तत्रादौ प्रतिबिम्बाकर्षणस्यानान्यथाक्रमम् । महर्षिमातङ्गमतानुसारेणात्रसंग्रहान् ॥
 निरूप्यपश्चात्तत्संस्कारविधिसंप्रचक्षते ॥

rendering it normal as well as of destroying the foreign and unwelcome forces in the man displacing them at the same time, by the native and welcome ones. This practice, inasmuch as it is capable of doing the above good, is prescribed by Shruti also for people of this land as an essential rite on such occasions. It is known as "Mukha darshana karma" in Samskrit. Reproducing the likeness of a person or thing by means of drawing, painting or photography has therefore been in vogue in this land from time out of memory.

The Vedic passage recited at the time of observing the above rite is expressive of all these ideas and forms part of the Rigveda. It simply means that the same Bimba or likeness or image of an object gets an infinite number of similar shapes and appears as so many images.

Coming to the point at issue it is to be noted that though Atma or Brahma is one, its likeness is reflected in Moola Prakriti and its image is reproduced in an infinite number of forms to the limits of the whole universe. As a corollary it is to be learnt that just as we can determine the form of the original object by looking at its image or photograph, so also it is possible to realize the nature of Atma or Brahma by observing and studying the universe which is its exact likeness, image or photograph. The import of the above Vedic passage therefore is that it is essential to get an image or photograph of every person or thing.

The venerable Maharshi Shaunaka, for the good of the world, took up research work in the art and science of photography, for reproducing the likeness of movable and immovable objects in creation, hinted at in the above Vedic passage viz., the one form becomes many of its kind. He investigated it in all possible ways as suggested in the Shruti and incorporated all his observations

॥ अथस्थानानि ॥

तैलषट्कंजलशतदर्पणाष्टकमेवच । द्वात्रिंशत्काचभेदाश्चमणिषट्कंतयैवहि ॥
 शिलाद्वादशकंतद्रलोहसप्तकमेवच । द्वादशकलाक्षात्रयंचैवयथाक्रमम् ॥
 मुक्ताफलाष्टकरत्ननवकंचतयैवहि । पत्रषट्कंतथापुष्पसप्तकंचफलाष्टकम् ॥

and experiences in the form of aphorisms to facilitate the understanding thereof even by young boys. In it he enumerates the articles, according to Maharshi Matanga, on which the likeness of an object can be reproduced and then describes the methods of purifying each of them to render it fit for the purpose.

According to Maharshi Matanga those articles are :—

1. OILS: —Out of 64 kinds of oils only the 6 kinds such as the oil of Tila or the seeds of sesamum, castor oil, the oil of Jyotishmaka seeds and so on.
2. WATER: —Out of the 100 varieties of water described in Aṭṭatwaprakāśika, only the 12 kinds such as Dravagarbha, Panchavarṇa, Surabhi and so on.
3. Out of the 1914 kinds of glass only the 8 varieties such as Rasa Garbha, Bhamukha, Soonyagarbha, Swachagarbha etc., described in Darpana Prakaraṇa.
4. Out of the 407 kinds of Kacha or glass of a particular composition, only the 32 varieties such as Chayagrahaka, Anugrahaka, Sookshmagrahaka, Parokshagrahaka etc., described in Kacha Kala Kausala.
5. The six kinds of manis, such as Varnagrahaka, Roopagrahaka, Sookshmagrahaka etc., mentioned in Manikalpātara.
6. The 12 varieties of stone such as Sphatika, Amruta, Jyotsna Mukha, Chandra kantha etc., described in Shilodaya Prakasika.

पट्टद्वादशकंचर्मपञ्चकंचाभूकत्रयम् । भूतपञ्चकमित्यष्टादशस्थानान्यथाक्रमम् ॥

प्रतिबिम्बाकर्षणार्हाणीतिप्रादुर्मनीषिणः ॥

पञ्चविंशतिसंस्कारैस्संस्कृतेषुयथाविधि । एतेषुषड्द्वादकाणांसंयोगस्याद्यदिक्रमात् ॥

बिम्बस्यप्रतिबिम्बाकर्षणंभवतिहिध्रुवम् । प्रतिबिम्बस्याष्टादशस्थानान्युत्तवायथाक्रमम् ॥

7. The seven classes of metals such as gold, shundal silver, Bhrajika etc., described in Lohatantra.

8. The 12 species of trees such as Bruhat Ksheeree, Surabhee, Vyaghraghee, Shankharava etc., described in Agatatvalahari.

9. The 3 kinds of lac or vegetable wax known as Ranjika, Dharavahaka and Shaktimukha described in the above work.

10. The 8 kinds of pearls such as Venuja or pearls produced in bamboos, Surpaja or those that are produced from snakes, Mathsyaja or those that are produced from fish, jalaja or those produced from water etc., described in Vajrakalpa.

11. The 9 varieties of precious stones (Jeevaratnas) such as Anurakshaka, Pranaprakshaka, Jnanarakshaka, etc., described in Ratnakara.

12. The 6 kinds of leaves such as Swetha Kadalee or white plantain, Panchajyotee, Parvanika etc., described in Agatawalahari.

13. The 7 kinds of flowers such as Rajapushpa, Kusu na Jyoti pushpa, Jyotirmukha pushpa etc., described in the last named work.

14. The 8 kinds of fruits such as Likucha, Daiva Madala, Jamboo etc., described in the same work.

15. The 12 varieties of cloth such as Vrukshaja Patra Vasthra or cloth made of silk produced from trees, Avika Loma Vasthra or cloth made of sheep wool, Karpasa Vasthra or cotton cloth etc., described in Patakalpa Mahodadhi.

संस्कारनिर्णयस्तेषां पृथक्पृथङ्निर्णयते । वस्तुसंस्कारकल्पेतु संस्कारावहवस्मृताः ॥
 प्रतिबिम्बाकर्षणार्थं वस्तुसंस्कारकर्मणि । तैलादिपञ्चभूतान्तवस्तूनां पञ्चविंशतिः ॥
 संस्कारास्तासु विधिवद्वस्तुतत्त्वानुसारतः । प्रोक्तास्ता एव संगृह्य संग्रहेणान्वकीर्त्यते ॥
 निर्मलश्च प्रकाशश्च रसगर्भः प्रसारणः । व्यापकोऽचुंबकश्चैव किरणाकर्षणस्तथा ॥

16. The five kinds of hides or leather such as the skin of Swetha'nakra or the white crocodile, of Jalavyalee or a large water snake of green colour, of Pavakasaneer or a bird which devours sparks of fire, etc., described in Charma Shastra.

17. The 3 kinds of mica known as Rasagarbha, Prabhamukha and Ranjanika, described in Abhraka Kalpa.

18. Lastly the five elements viz., mud, water, light, air and Akasa.

Summing up the 25 classes of substances, give 249 articles, on which likenesses or images of objects can be reproduced.

By the action of the six salts (Dravakas) on any one of the above articles which have undergone the said 25 preparatory treatments, the likeness of any person or thing is attracted.

Having thus enumerated the classes of articles on which likeness of persons or things can be reproduced, we shall now define the 25 treatments to be given to them in order to render them fit for the purpose.

Many are the purificatory processes of substances described very lucidly in a work known as Vastu Samskara Kalpa, in connection with the reproduction of objects. Of them the 25 treatments of the 25 classes of articles such as oil and so on named above, will be quoted here :—

1. NIRMALA SAMSKARA.—

This is a treatment whereby the articles are purified by throwing out the impurities therein and rendered fit to receive the images of objects thereon.

आकाशग्रहणस्तद्वच्छक्तिग्राहकमेवच । वर्णग्रहोच्चित्ररेखाग्रहणोरुपसंग्रहः ॥
गर्भप्रवेशान्तः प्रकाशलयनान्तः प्रदर्शकः । निश्चलोद्ग्रहश्चैवअणुसंग्रहणस्तथा ॥

2. PRAKASA SAMSKARA.—

This is a treatment whereby the necessary light is supplied to the articles for the purpose.

3. RASAGARBHA SAMSKARA.—

This is a treatment whereby the mercury contained within the articles is purified.

4. PRASARANA SAMSKARA.—

This is a treatment whereby the power of an object whose likeness is to be reproduced, is made to spread on the articles used for the purpose.

5. VYAPAKA SAMSKARA.—

This is a treatment whereby the reflected image that has spread on an article, is made to resemble the original object.

6. CHUMBAKA SAMSKARA.—

This is a process in which the article is made to attract the image of the original object, just as a magnet does a piece of iron.

7. KIRANAPAKARSHANA SAMSKARA.—

This is a process wherein the powers of solar rays necessary for the reproduction of the likeness of an object, are attracted and supplied and then the rays are caused to be repelled.

8. AKASA GRAHANA SAMSKARA.—

This is a treatment whereby an adequate extent of empty space (Akasa) is provided where the likeness of an object is to be reproduced.

9. SHAKTI GRAHAKA SAMSKARA.—

This is a treatment whereby an adequate quantity of Varuna Shakti or solar electricity, necessary for the reproduction of the image of an object is supplied.

द्विमुखीकरणस्तद्विज्जातीयपरिग्रहः । असंगोष्णशीतलश्चतयाभिम्बपरिग्रहः ॥
इत्युक्ताः पञ्चविंशतिसंस्कारावस्तुशोधकाः । एतैः पूर्वोक्तसंख्यानुसारेणैव यथाक्रमम् ॥

10. VARNA GRAHAKA SAMSKARA.—

This is a treatment whereby such colours as the original object contains are attracted from the solar rays and supplied, so that the image reproduced might retain the colours of the original object.

11. CHITRAREKHA GRAHANA SAMSKARA.—

This is a treatment whereby the required number of Chitra-rekha powers are attracted from the air and are supplied to the image so that the various lines, wrinkles and similar marks on the skin of the original object are exactly delineated in the image reproduced.

12. ROOPA SANGRAHANA SAMSKARA.—

The *Vidyut and Someeya powers present in the third Paridhi of the sky are capable of producing the exact likeness of all the limbs of the original object in its reproduced image. This treatment is the process of supplying the required quantity of these powers, so that the reproduced image appears life-like of the original object.

13. GARBHA PRAVESA SAMSKARA.—

This is a process whereby the shaktis or things present inside the original are made to be reflected in the image produced.

14. ANTAR PRAKASA SAMSKARA.—

A definite quantity of internal and external light is essential on and behind the original object, to be reflected as the image.

* 1. Vidyut here means the Anga Kalpana Shakti (or a power which has the property of reproducing the exact likeness of the limbs of the original object in the reproduced image) present in the Ishadanda or the axis of the solar globe.

2. Someeya is a Shakti (capable of the above function) present in the third Kakshya of the moon.

प्रतिबिंबाकर्षणोपयुक्तानां वस्तुनां क्रमात् । संस्कारयेद्यथाशास्त्रं पृथक् पृथक् पुनः पुनः ॥

संस्कारितेषु तैलादिपञ्चविंशतिवस्तुषु । प्रतिबिंबाकर्षणार्हयन्त्राण्यपि पृथक् पृथक् ॥

ing this light from the 2nd Chakramandala of the sky constitutes this treatment.

15. LAYANA SAMSKARA.—

The presence of powers latent and ingredients invisible in the original must be made to be felt as such, in the reflected image. Layana Shakti present in the 7th Dhwantamandala of the sky is capable of effecting it. Hence attracting and supplying this power to the articles used for the reproduction of objects, constitute this treatment.

16. ANTAH PRADARSHAKA SAMSKARA.—

This is a process whereby the minute and microscopic phenomena (which are invisible ordinarily but are visible only by the help of powerful lenses) contained inside the original object are caused to be reflected in the reproduced image in the same condition.

17. NISCHALA SAMSKARA.—

Every object contains a certain amount of heat and vega (speed). The object remains motionless when these are normal. When, however, they are in excess it is set at motion. Attracting as much of Achala Shakti (the power which renders objects motionless) from Vayumandala and supplying it to the article to keep the reflected image motionless* constitute this treatment.

18. DRUGRAHA SAMSKARA.—

The white portion, the black portion and Kaneenika (pupil) of the eye of every being contain three powers of motion. Whenever the eye has to observe the shape of a certain object, the power of the eye present at the place viz., Bindusthana, attracts the power of the shape of that object. Then the power of the black portion of the eye attracts it into it and makes it pervade within it. Then the

* It is to be noted in this connection that when the power of motion is supplied, the reflected image will be set at motion.

षोडशाक्षिप्रमाणेनतमः प्रोक्तस्तथैवहि । पञ्चलिकप्रमाणेनरक्तवर्णइतिक्रमात् ॥

प्रकाशोष्टाविंशतिभ्राजिमानइतिस्मृतः । एतत्तूयक्रौडियन्त्रमुखात्तत्तत्प्रमाणतः ॥

white portion stops the pervasive power and retains it within itself. That much of power as an anu at the Bindu sthana is magnified ten times in the black portion and twenty times in the white portion. Then as much as $\frac{1}{4}$ of an anu of Prana Jyoti which exists behind the eyeball spreads on the white portion and pushes the Swarupa Shakti of the object observed to the front. Then as much as $\frac{1}{8}$ of an anu of the power of the external light of the sun or other luminous bodies enters at the end of Kaneenika, attracts upwards the Vastu Swarupa Shakti, which is being pushed forward and locates it as $\frac{1}{4}$ of an anu in size in the centre of Kaneenika. The likeness of the object thus located there is reflected in the external light.

It is then known as Drushya (the object seen). Immediately the Pranajyoti existing behind, occupies the place which was occupied by the Vastu Swarupa, that had attained the form of Drushya. Then the Drushya Shakti covers up the place of Pranajyoti. Since Pranajyoti circumscribed by the enclosure sees the power of Drushya, it is said to be Druk or the seer. Since the power of Swarupa (the actual shape of the object) approaches the Druk, the actual shape of the object is seen. By the meeting of Druk and Drushya thus, the exact shape or likeness of the object is pictured and Antahkarana experiences it. This is the nature of the eye.

This is a treatment whereby the Druk and Drushya powers of the eyes of the original are caused to be reflected in those of its reflected image so that the exact likeness of the eyes of the original object is reproduced in those of its reflected image.

19. ANUSANGRAHANA SAMSKARA.—

The Shastras declare that the size of Jeeva Shakti in a being is $\frac{1}{100}$ th part of the tip of a hair, and it is known as Anu also. This treatment is comprised in causing this Anu of the original

प्रतिबिम्बाकर्षणादौतत्प्रदेशे प्रसारयेत् । पश्चात्तैलादिवर्गेषु प्रतिबिम्बापकर्षणे ॥
पूर्वोक्तषड्द्रावकाणां शक्तयस्समिज्येयत् । विद्युत्संयोजनं कृत्वा प्रतिबिम्बं समाहरेत् ॥

object, to enter into and appear in the reflected image in the form of a shadow.

20. DWIMUKHEEKARANA SAMSKARA.—

This is a treatment whereby the likeness of an object is made to appear in the reflected image in two ways, i.e. the front part from behind and the hind part from the front.

21. VIJATEEYA PARIGRAHA SAMSKARA.—

This is a treatment whereby the likeness of two persons of opposite sexes, male and female is produced in one and the same reflected image, male in one half and female in the other half.

22. ASANGA SAMSKARA.—

This is a treatment whereby reflected images are caused to appear on plates on which the likenesses are reproduced without their coming into contact with the plates themselves, just as the image of the sun is reflected on sheets of water and the like, without his coming into contact with those articles on which he causes his reflection.

23. USHNA SAMSKARA.—

A definite quantity of heat is required for the reproduction of the likeness of an object. Should the limit be exceeded, the image burns. Supplying the adequate quantity of the heat so that the image looks bright and beautiful, constitutes this treatment.

24. SEETHALA SAMSKARA.—

This is a treatment similar to the above dealing with coldness instead of heat.

25. BIMBA PARIGRAHA SAMSKARA.—

If a reflected image after being smeared with some specific Dravakas, is kept face to face with the original and then if it is

विद्युच्छक्तिविनाकेचित्प्रवदन्तिमनीषिणः । द्रावकाणिविनाकेचित्तथैवप्रवदन्तिहि ॥

. इत्यादि ॥

सूत्रोक्तचित्प्रतिबिम्बाकर्षणाख्यपदस्यहि । एवंशास्त्रोक्तविधिनाविशेषार्थो निरूपितः ॥

इतिषष्ठमसूत्रस्यतात्पर्यस्संप्रकीर्तितः ॥

subjected to the action of the power of the 16th Kirana kakshya of the sky, the reflected image disappears—dissolving in the original object. This treatment is meant to effect this result.

These are the 25 purificatory treatments that the articles on which the likeness of objects can be reproduced, have to undergo. The number of treatments that each of these articles is to be given so that it may become fit to receive the image reflected on it, has already been mentioned. These 25 articles have as many different apparatuses for reproducing images on them.

Again the three colours-black, red and white should be mixed with the articles for reproducing images on them. The quantity of each of these is fixed as follows:—

- | | | |
|---------------|------|---------------|
| 1. Darkness | .... | 16 Aleekas |
| 2. Redness | .... | 5 Linkas |
| 3. Brightness | .... | 28 Bhrajikas. |

These three should be made to mix with the articles by means of a machine known as Kraulika Yantra. Thereupon these articles should be treated with the six Dravakas or salts mentioned already. This done, the articles become fit to receive the image of any object. Then the likeness is reproduced by means of electricity. Some are of opinion that reproduction of images is possible without having recourse to electricity. Some again opine that the use of the six Dravakas may be dispensed with.

The significance of the word “Pratibimbakarshanam”, has thus been explained in the above Shastra. Thus ends the commentary on the fifth aphorism.

॥ सूत्रम् ६. ॥

॥ तत्संयोगादत्यन्तभ्रमणस्तद्गुणानाम् ॥

॥ बोधानन्दवृत्तिः ॥

प्रतिबिम्बविधिः प्रोक्तः पूर्वसूत्रेचितेः क्रमात् । तत्संयोगात्कीर्त्यतेसिन्प्रकृत्यान्निगुणभ्रमः ॥
 गुणभ्रमणबोधकपदान्यसिन्त्रयः क्रमात् । प्रतिबिम्बस्यसंयोगस्तत्रादिमपदात्स्मृतः ॥
 अत्यन्तभ्रमणं तद्वद्वितीयपदतः क्रमात् । उक्तमग्नीषोमशक्तेर्गुणत्रयंतृतीयतः ॥
 पदार्थमेवमुक्तं तस्मान् सामान्यार्थोऽधुनोच्यते । यदग्नीषोमशक्त्यांचित्प्रतिबिम्बमभूत्स्वतः ॥
 तत्तान्निव्यवृत्त्यात्तस्यास्त्रिगुणेषु यथाक्रमम् ।

THE SIXTH APHORISM.

The three guns, present in the Agnishoma' Shakti, on account of the proximity of the said reflected image, begin to revolve rapidly. This is the aphorism.

BODHANANDA'S COMMENTARY.

In the foregoing aphorism, how the reflection of the radiance of Paramatma was caused in the Agnishoma Shakti has been dealt with. In this aphorism, how, on account of the proximity of this image of Chit; the three gunas, Satwa, Raja and Tama, present in that Agnishoma Shakti or Moola prakriti, are made to revolve rapidly (with what is known as Atyanta vega) will be explained.

In this aphorism there are three words referring to this revolution (Atyanta vega). The first of these words conveys that the action of the reflected image is the cause of the revolution of the three gunas. The second word names the rapid revolution produced in those gunas. The third word points out the Satwa Raja and Tama gunas, present in the Agnishoma Shakti. This is the meaning of the words in the aphorism, taken by themselves. We shall now give the purport of the aphorism.

अभूदत्यन्तवेगेन भ्रमणत्वंस्वभावतः । तृतीयसूत्रव्याख्यानेत्यन्तवेगस्यलक्षणम् ॥
प्रतिपादितमस्माभिः पूर्वमेवयथाक्रमम् ॥

॥ सूत्रम् ७. ॥

॥ तस्मात्तच्छक्तिसंमेलनं रस्परमेकादश न्यायेन ॥

॥ बोधानन्दवृत्तिः ॥

त्रिगुणानांपूर्वसूत्रादत्यन्तभ्रमणस्मृतः । तेनसंमेलनंतच्छक्तीनामस्मिन्निरूप्यते ॥
शक्तिसंमेलनक्रमबोधकानियथाक्रमम् । पदानिसूत्रेचत्वारिनिर्णितानिपदक्रमात् ॥
तत्रादिमपदात्सम्यग्गुणवेगः प्रदर्शितः । द्वितीयपदतस्त्वांशक्तित्रयमुदाहृतम् ॥
तृतीयपदतस्त्वासांमन्योन्यत्वंनिरूपितम् । तथाचतुर्थपदतस्त्वतस्सिद्धः प्रदर्शितः ॥
पदार्थमेवमुक्तत्वात्सामान्यार्थोऽधुनोच्यते ॥

By virtue of the proximity of the reflected image of the radiance of Paramatma, naturally produced in the Agnishoma Shakti a rapid revolution (Atyanta vega) is naturally produced in the three gunas. Satwa, Raja and Tama, present in the Agnishoma Shakti. This is the purport of the aphorism.

The nature of the speed or motion (Atyanta vega) has already been explained in connection with the commentary on the third aphorism.

This aphorism needs no detailed explanation.

THE SEVENTH APHORISM.

According to the eleventh axiom the shaktis of the three gunas get intermingled with one another on account of their rapid revolution. This is the aphorism.

The Commentary.

In the previous aphorism, how a rapid revolution takes place in the three gunas, has been explained. In this aphorism how the Shaktis of those gunas get intermingled with one another will be dealt with.

॥ सामान्यार्थः ॥

एकादशशतस्त्रिद्वयसूत्रानुसारतः । गुणत्रयभ्रमणवेगात्तच्छक्तीनांपरस्परम् ॥
अन्योन्याकर्षणात्सम्यङ्मेळनंभवतिस्वतः । एवंसामान्यार्थमुक्त्वाविशेषार्थोद्घुनोच्यते ॥

॥ विशेषार्थः ॥

एकादशन्यायइतिसूत्रेयत्प्रतिपादितम् । तद्यविशदीकृत्ययथाशास्त्रंनिरूप्यते ॥

स्वतस्त्रिद्वयसूत्रम् ॥ १ ॥

**यस्मिन्नत्यन्तवेगस्तास्मिन्यरयोस्तादात्म्या
त्स्वशक्त्यान्यशक्त्यपकर्षणंसहजंस्याच्चित्र
कवत् ॥**

The four words into which this aphorism resolves itself, refer to the process of the intermingling of the Shaktis. The first word refers to the rapidity of revolution of the three gunas, the second, to their intermingling, the third, to their relation with one-another; and the fourth word cites the axiom or the self-evident truth concerned. This is the meaning of the words in the aphorism.

The general sense of the aphorism is this.

On account of the rapidity of the revolution of the gunas their Shaktis naturally attract one another, as a consequence of which they naturally intermingle with one another. This is the general sense of the aphorism.

The detailed explanation.

The eleventh axiom quoted in this aphorism will be explained, according to the Snastra of axioms.

THE ELEVENTH AXIOM.

By the combination of the Shaktis indicated by the letters "Ya" and "Ra" with some-thing having "Atyanta Vega", it is natural that its Shakti draws towards it the things and their shaktis around it, just as the whirl-wind known as Chitraka. This is the eleventh axiom.

॥ विश्वंभरवृत्तिः ॥

यस्मिन्नत्यन्तवेगोस्तिद्वेगपरिपाकतः । यरयोर्मेळनंतस्मिन्तादात्म्याद्भवतिस्वयम् ॥
तस्माद्वेगः पूर्वशक्तेर्भवेच्छतगुणाधिकम् । पश्चात्स्वशक्त्याखोपान्तवस्तुशक्त्यपकर्षणम् ॥
सहजंस्यात्स्वभावेनतस्यचित्रकशायुवत् । तृतीयसूत्रव्याख्यानेत्यन्तवेगोभिवर्णितः ॥
साङ्केतार्थः कथ्यतेद्यसूत्रस्ययस्वर्णयोः ॥

॥ तदुक्तं शक्तिविलासे ॥

वायुशक्तिरितिप्रोक्तोयकारस्तद्वेदेवहि । उष्णशक्तिरितिप्रोक्तोरकारश्चस्वभावतः ॥
वर्णसाङ्केतकादेवंशक्तिद्वयमुदाहृतम् ॥

इत्यादि ॥

Bodhananda Comments on this axiom as follows.

On account of the maturity * vega of something that has Atyanta vega, it is natural that the two shaktis, indicated by the letters "Ya" and "Ra" present in that vega, should naturally unite together whereby they become one with the vega itself.

This combination of the two Shaktis with the vega, renders the vega a hundred-fold more rapid. The original vega, then, by its increased rapidity, gets so powerful that it naturally draws or attracts towards it the things and their shaktis of the phenomena around it, just as Chitraka whirl-wind does.

We have dealt with the nature of Atyanta vega in connection with the commentary on the third aphorism. We shall now explain briefly the nature of the shaktis indicated by the above two letters, "Ya" and "Ra" as described in a scientific work known as "Shakti Vilasa", thus.

The letter "Ya" is used here to indicate the Shakti of air (Vata Shakti) and "Ra" to indicate the Shakti of heat (Ushna Shakti).

Note * A certain vega (Potential energy) set in a circular motion, revolves for some time when the two shaktis in it remain as they were. After a certain period, they get ready to combine together and this readiness of the Shaktis of the vega to combine together is known as Paripaka or maturity of the vega.

॥ शौनकोपि ॥ सूत्रम् ॥

यकारोवायुरग्निरकार स्तत्संयोगाद्वेगइत्यादि ॥

॥ चित्रकलक्षणमुक्तंवायुतत्त्वप्रकरणे ॥

द्वाविंशदुत्तरशतवायुवर्गाइतीरिताः । तेष्वार्वर्तवातवर्गस्सप्तषष्ठितमस्स्मृतः ॥

आवर्तवायवस्तस्मिन्द्वाविंशतिरितीरिताः । सप्तमश्चित्रकोनामवायुस्तेष्विति निर्णितः ॥

This is how Shakti vilasa determines the nature of the two Shaktis indicated by the two letters "Ya" and Ra" in the above aphorism.

Maharshi Shaunaka also, dealing with the above shaktis states in his aphorism that the letter "Ya" represents the shakti of air and "Ra", the Shakti of heat and that by the combination of these two Shaktis the Vega is accelerated to what is known as Mahavega.

Thus we have, by means of the above two authorities determined the nature of the two Shaktis indicated by the two letters "Ya" and "Ra" in the above aphorism. We shall now explain the characteristics of Chitraka whirl-wind.

"Vayu tatwa Prakarana" or a shastra on air and winds, dealing with Chitraka whirl-wind observes as follows.

The aggregate of air of this Brahmanda is divided into three kinds (mandalas) viz., (1) Brahmanda Vahaka Vata Mandalas or the winds that support the Brahmandas, (2) Loka Vahaka vata mandalas or the winds that bear the individual lokas within the Brahmanda and (3) Srashti or vastu vahaka vata mandalas or the winds that support things under creation. Of these the last kind viz., the winds supporting things under creation are of 122 different groups. The 67th of these groups belongs to whirl-winds which are of thirty-two varieties. Of them the one mentioned in the above aphorism viz., Chitraka is said to be the seventh in order.

॥ तद्वक्ष्यमुक्तमेव ॥

दिक्प्राबाहिक्वातानानिरुद्धोयत्रवाभवेत् । तत्रचित्रगतिर्वायुः चित्रकोनामजायते ॥

आवर्तगतिवेगाद्यास्तत्स्वरूपमिति स्मृतः । तत्समीपस्थवस्तूनांतद्वेगादपकर्षणम् ॥

इत्यादि ॥

इत्थंसप्तमसूत्रस्यविशेषार्थोभिवर्णितः । संप्रदायानुसारेणयथाशास्त्रंयथामति ॥

Having determined the Chitraka whirl-wind, the above Shastra proceeds to determine its nature and characteristics, thus.

In each of the eight Digmandalas of the eight directions East, South-east etc., there are many floods of winds. When the winds of a certain direction begin to blow in another direction, the opposite winds obstruct them naturally. In this way whenever and wherever winds of different directions meet and obstruct the flow of one another they struggle among themselves. Two winds—one of each direction—thus meeting and struggling with each other form a whirl-wind, which turns round and round on earth very rapidly and then tries to rise up. Thereupon another whirl-wind is formed out of it and it is named, Chitraka which has motion in all directions. Its fundamental characteristics are turning round and round, motion and speed. Further it draws towards it whatever comes in contact with it. This is the explanation of the whirl-wind Chitraka.*

Thus ends the detailed explanation on the seventh aphorism.

Note:—In determining the whirl-wind, Chitraka, the Shastra further mentions as follows. In each of the eight digmandalas there are many kinds of winds. One of those classes is of Pravaḥika Vata or air flowing from place to place. These are of one lakh and five varieties. Of them the 700th and 70th are known as Chanchuka and Pooraka respectively. By the meeting of these two winds of opposite directions, of course, a whirl-wind, known as Chakraka is formed, from which also another whirl-wind comes into existence. It is this particular whirl-wind that is known as Chitraka.

॥ सूत्रम् ८ ॥

॥ शक्त्योरन्योन्यादर्शणान्तराण्युत्पत्तयोरस्य
तस्मादुद्भूतिः ॥

॥ बोधानन्दवृत्तिः ॥

शक्तिसंमेलनसम्यक्पूर्वसूत्रेनिरूपितम् । सूत्रेस्मिन्चित्प्रकाशस्यावरणद्वयमुच्यते ॥
आवरणप्रबोधकपदान्यस्मिन्यथाक्रमम् । पदच्छेदनतस्सप्तइतिसम्यग्विनिर्णितः ॥
तत्रादिमपदात्सत्त्वतमशशक्तीनिरूपिते । अन्योन्याकर्षणं प्रोक्तं द्वितीयपदतस्तयोः ॥
क्रमात्तृतीयपदतः प्रोक्तमावरणद्वयम् । चतुर्थपदतस्तद्वच्चित्प्रकाशो निरूपितः ॥
तथैवपञ्चमपदात्कारणसंप्रदर्शितम् । तदुत्तरपदान्नामचितेस्सम्याङ्गिनिरूपितम् ॥
प्रसिद्धार्यद्योतनार्थसप्तमपदमीरितम् । पदार्थमेवमुक्तवास्यसामान्यार्थोऽधुनोच्यते ॥

THE 8TH APHORISM.

By the mutual attraction of the Satwa and Tama Shaktis, halos or enclosures are formed to the radiance of the reflected image of Paramatma whereby the reflected image is known as Rudra. This is the aphorism.

BODHANANDA'S COMMENTARY.

Having explained the process of intermingling of the Shaktis of the three gunas in the previous aphorism, now in this aphorism the two shaktis of Satwa and Tama gunas are said to be two halos to the radiance of the reflected image of Chit.

In this aphorism there are seven words determining the nature of these enclosures (halos). The first of these words states the two shaktis, of Satwa and Tama. The second word denotes the mutual attraction of these shaktis. The third word speaks of the two halos formed from Satwa and Tama shaktis to the reflected image of Chit. The fourth word refers to the image of the radiance of the reflected image of Chit. The fifth word states that the two halos are the reason why the name Rudra is given to it. The sixth word gives the name

॥ सामान्यार्थः ॥

क्रमात्सत्त्वतमोरूपगुणभ्रमणवेगतः । सत्त्वशक्त्याथतमसोभवेच्छक्त्यपकर्षणम् ॥
 तथैवचतमशक्त्यासत्त्वशक्त्यपकर्षणम् । अनयोःपरस्पराकर्षणादावरणद्वयम् ॥
 प्रथमावरणंतत्रसत्त्वशक्तिरितीरितम् । क्रमाच्चित्प्रतिबिम्बप्रकाशस्यभवतिस्वतः ॥
 तमसश्शक्तिरित्युक्तं द्वितीयावरणंतथा । प्रथमावरणंतस्यनैजं वपुरितिर्यते ॥
 तस्माद्विश्वधिकोरुद्रोमहर्षिरिति हि श्रुतिः । प्राह गंभीरयावाचा अतोरुद्र इति स्मृतः ॥
 स्वयंप्रकाशरूपत्वात्सत्त्वविग्रहतस्तथा । रुद्रस्य सात्त्विकश्च शुद्धविग्रहश्चेति शास्त्रतः ॥

Rudra to the image of the radiance of Chit. The seventh word declares that this is a well known fact.

Having given the word meaning of the aphorism now its general sense is explained thus.

By the rapidity of the revolution of Satwa and Tama gunas the Satwa shakti attracts Tama shakti and vice versa. Thus when the Satwa Shakti acts on Tama shakti, the latter forms a black halo around the white satwa shakti which has already surrounded the image of Chit in it. Thus the image of Chit is now surrounded by these two coverings, the inner one being Satwa shakti and the outer one, Tama shakti. The halo of Satwa, white in colour, is said to be the natural body of the radiance of the reflected image of Chit. That is why the Shruti describes this image (surrounded by this halo) in such terms as the Highest in the universe, Rudra¹ & Maharshi² and so on. In this way the image of the radiance of chit, pictured in Satwa Shakti and surrounded by the above two halos, comes to be known as Rudra.

(1) Rudra is He who has power to bestow Moksha or eternal bliss and who is the Lord of Dissolution of the Universe.

(2) Maharshi is one who knows the secret meaning of the Pranava Mantra. Since Rudra is as shown above, pure Satwa in nature, Maharshi describes him in shastras as Satwika or one who is of the nature of Satwa, Suddha Vighraha or one whose body is pure and so on.

प्रवदन्तिविशेषेणमुनयोब्रह्मवादिनः । कदाचिह्रीलयारुद्रःप्रळयार्थस्वभावतः ॥
 तामसीतनुमाश्रित्यसृष्टिसंहारकोभवेत् । तामसीतनुरित्याहुर्द्वितीयावरणक्रमात् ॥
 रुद्रस्सुखस्वरूपत्वात्क्रयचित्तासीतनुम् । जगत्सृष्टेःप्रळयकार्यस्रतिनान्यथा ॥
 आनन्दसुखबोधस्वरूपत्वात्परमार्थतः । विष्णुब्रह्मादिदेवानांवरिष्ठइतिकीर्तितः ॥
 तस्माद्रुद्रस्यशास्त्रेषु अन्तस्सत्त्वंब्रह्मिष्ठम् । इतिवेदप्रमाणेनज्ञानिनः प्रवदन्तिहि ॥
 अतश्चित्प्रतिबिम्बप्रकाशस्यावरणद्वयम् । तनुद्वयस्वरूपेणसूत्रेस्मिन्सन्निरूपितम् ॥
 एवंसूत्रस्यविधिवत्सामान्यार्थोन्निरूपितः । नविद्यतेविशेषार्थस्सूत्रस्यास्यमनागपि ॥

In times of dissolution of the universe, however, this Rudra, though of pure satwa, naturally takes up, for the sake of dissolution, the Tama body and acts as the Lord of dissolution. This Tama body of Rudra, the learned proclaim, is nothing other than the outer or Tama halo of the reflected image of Chit mentioned above. This Rudra, inasmuch as he is of the nature of eternal bliss, recollects his Tama body (afore-said) abruptly, for the sake of dissolution of the universe. Vishnu and Brahma, on the other hand, having no Satwa in them, feel ownership or egotism in respect of their bodies. Contrarily Rudra on account of his being immersed in eternal bliss always, never identifies himself with his bodies. Therefore Rudra is said to be the highest of all Devas Vishnu, Brahma and so on. So the learned declare in the Shastras on the authority of the Vedas that Rudra is of the nature of internal satwa and external Tama.

This aphorism has, thus established that the two halos mentioned above are the two bodies of Rudra.

This is the import of this aphorism which needs no detailed explanation.

॥ सूत्रम् ९ ॥

॥ तन्महत्वेणात्कंचुकतमोपपन्नं तमसि पूर्व
वत् शक्तिरिति ज्ञायेन ॥

॥ बोधानन्दवृत्तिः ॥

प्रतिबिम्बितेः पूर्वसूत्रेरुद्धत्वमीरितम् । उच्यतेस्मिन्सत्त्ववेगात्तमश्शक्त्यपकर्षणम् ॥
तमश्शक्त्यपकर्षणबोधकानियथाक्रमम् । पदानिपञ्चसूत्रेस्मिन्निर्णिता निपदक्रमात् ॥
तत्रादिमपदात्सत्त्वमहावेगः प्रदर्शितः । तमः प्रमाणमुक्तस्याद्वितीयपदस्तथा ॥
तृतीयपदतः पश्चात्तमोगुणमुदीरितम् । पूर्वदृष्टान्तमुक्तस्याच्चतुर्थपदतः क्रमात् ॥
तथैवपञ्चमपदात्स्वतस्सिद्धो निरूपितः । पदार्थमेवमुक्तवास्यसामान्यार्थोऽधुनोच्यते ॥

THE NINTH APHORISM.

According to the 83rd axiom, so much as a Kanchuka more of darkness of Tamoguna was, as in the previous case, attracted by Satwa Shakti, on account of its Maha Vega. This is the aphorism.

The Commentary.

In the foregoing aphorism, the radiance of Atma reflected in Satwaguna, present in the Agnishoma Shakti was said to be Rudra on account of the superiority of the Satwa Guna over the other two gunas. Now in this 9th aphorism, the fact that a greater quantity of darkness than before, was attracted by the Satwa Shakti which grew in its dimensions on account of the proximity of Rudra, will be explained.

This aphorism consists of five words dealing with the process of attraction of darkness. The Mahavega of Satwa shakti is referred to of by the first word. The quantity of darkness is indicated by the second word. Tamoguna is mentioned by the third word. The previously quoted parallel regarding the attraction of darkness is expressed by the 4th word. Lastly an axiom is pointed out by the fifth word.

॥ सामान्यार्थः ॥

अन्योन्याश्रयसंबन्धात्सत्त्वचित्प्रतिबिंबयोः । जातस्त्वमेमहावेगस्तस्मात्तमसिपूर्ववत् ॥
 त्र्यंशोतिकृत्वतस्मिद्वन्यायमानानुमारतः । तमस्यभूतकंचुकप्रमाणार्कणमुद्भुतम् ॥
 एवंसामान्यार्थमुक्त्वासुविचार्ययथामति । विशेषार्थोऽस्यसूत्रस्ययथाशास्त्रंनिरूप्यते ॥

॥ विशेषार्थः ॥

ध्वान्तप्रमाणकंचुकशब्दसूत्रेभिवर्णितः । तस्यकंचुकशब्दस्यनिर्णयार्थसमासतः ॥
 तमप्रमापकविद्विक्किंचिदत्रनिरूप्यते । तमप्रमापकविधौसन्तिशास्त्राणिपञ्चधा ॥
 तेषुशारिकनायोक्तध्वान्तविज्ञानभास्करे । तमप्रमापकविधिर्योक्तंस्वानुमूतितः
 तदेवात्रसमासेनयथाशास्त्रंनिरूप्यते ॥

॥ शारिकानाथः ॥

ध्वान्तप्रमापकंयन्त्रंनवोत्तरशतात्मकम् । द्वात्रिंशदंगसंयुक्तंमोभेदप्रदर्शकम् ॥
 उक्तंहियन्त्रसर्वखेभरद्वाजेनधीमता । तस्यत्रयोदशांगेनप्रमातुंतमसोभवेत् ॥

Having thus explained the meanings of the words of the aphorism severally, now its general sense will be given hereunder.

THE GENERAL SENSE

By virtue of the proximity of Chit (Atma) a great velocity (Mahavega) resulted in Satwaguna, on account of the contact between Atma Chaitanya reflected in Satwaguna and the Satwa Shakti embracing it.

Mahavega has been defined in connection with the commentary on the third aphorism.

Then according to the 83rd axiom so much as a Kanchuka in quantity of darkness of Tamoguna was, on account of the Mahavega, attracted by the Satwa Shakti.

Having thus explained the general sense of the aphorism, the technical explanation will be given below. To explain the term Kanchuka, mentioned in the aphorism as measure of darkness, it is necessary to sketch here the apparatus known as Tama Pramapaka Yantra, according to Sharikanatha, one of the five authors who have written Shastras on this subject, of measuring the quantity of darkness present in the solar rays.

तस्मादत्र समासेन तदंगं प्रविविच्यते । यंत्रस्थ द्वादशांगस्य पूर्वभागे स्थिते क्रमात् ।
 चतुरश्रेययाशास्त्रं वर्तुलं भारवर्जितम् । वितस्ति दशकायामसुदृढं च सुसूक्ष्मकम् ।
 छायापकर्षणादर्शेषदुत्तरशतात्मकम् । शास्त्रोक्तविधिना सम्यक्स्थापयेत्सुदृढततः ।
 चतुरंगुलमायामंषड्वितस्त्युन्नतं तथा । इतरांगैस्समाहृतविद्युत्तंत्र्यादिभिर्युतम् ।
 स्वमध्यादन्तर्पर्यन्तं वितस्त्यैकांतरं यथा । रंभ्रत्रयेण संयुक्तं शिलाकाचविनिर्मितम् ।
 मेरुस्तंभाख्यशङ्कुतन्मध्ये संस्थापयेद्दृढम् । पश्चात्ततीयरंभ्रस्य पार्श्वयोरुभयोरपि ।
 दुर्दृढं दशांगुलायामं क्रमात्पृथंगुलोज्जतम् । शास्त्रोक्तविधिना दंडमेकं संवारयेद्दृढम् ॥

The Thamahpramapaka Yantra or The apparatus to measure the quantity of darkness.

1. Procure a plate 125 inches square, made of glass belonging to the 32nd class and put it down as the base.

2. Get another round dial known as Chayapakarshana Darpana, 120 inches in circumference and made of glass of the 106th class.

3. At the centre of this dial, fix perpendicularly, a glass rod known as Meru Stambha, 4 inches in circumference, 75 inches high and made of glass belonging to the 13th class. Make 3 holes in it one below the other from the top. Round this vertical pole pass wires to supply the power of electricity, of the redness of evening and of air, brought from the 1st, the 2nd and the 3rd limbs of the machine respectively. Through these holes fix horizontally 3 glass rods made of glass of the 13th class, 60", 50" and 40" in length respectively. Let the two arms on either side of the vertical pole be equal but raised a little to the right side and lowered to the left. In both the sides of the vertical pole where the horizontal bars meet connect the above wires with triple toothed-wheels. Divide the dial on the base into two semi-circles, right and left and draw 30 radii on each semi-circle thus dividing the circle into 60 angles of 6° each and number them. (The 30 angles of the right semi-circle represent the 30 ghaticas of the day and those to the left denote those of the night.) Then divide each of these angles into 60 equal parts or angles and mark them with thick dots

तथाद्वितीयरंघस्यपार्श्वयोरुभयोरपि । क्रमादष्टाङ्गुलायामपंचाशदंगुलोज्जतम् ।
 दण्डमंवारयेत्तदुदुङ्काचनिर्मितम् । एवंप्रथमरंघस्यपार्श्वयोरुभयोरपि ।
 चत्वारिंशत्यंगुलोज्जतमायामेषदण्डंगुलम् । दंडसंयोजयेत्पूर्ववदुदुङ्काचनीर्मितम् ।
 दंडप्रमाणमुभयोस्समानमपिपार्श्वयोः । किंचिदूर्ध्वमवेद्दक्षेवामेषस्यात्स्यतिर्यथा ।
 तथासंभारयेत्तेषुदंडानित्रीण्यथाक्रमम् । पूर्वोक्ततंत्रिभिर्गुक्तचक्रकीलान्यथाविधि ।
 दंडानांमूच्छेदशेसंभारयेत्पार्श्वयोःक्रमात् । पश्चाच्छायापकर्षणदर्पणेशास्त्रतःक्रमात् ।

at the rim of the dial and number them. Each of these sub-divisions represents one Vighatica.*

4. Then get another round glass-plate of the 106th class, 60 inches in circumference. Divide it into 60° and number them from left to right and right to left. At the centre of this dial fix Prabhakara mani belonging to the 88th class. Now fix it horizontally at the end of the right hand side glass rod, fixed in the topmost hole of the perpendicular post. It must be so fixed as to revolve easily. This dial called Divakaradarsa is spoken of as "the sun" so far as this mechanism is concerned.

5. Then procure another glass-plate made of glass of the 216th class and 10 inches less in circumference than the Divakaradarsa. This dial must be treated with the three acids viz., (1) Sudharasa or an acid extracted from a substance known as 'Katuka Rohinee' and some other substances ; (2) Osharasa or Vegetable juice, or an acid prepared out of drugs such as Rudantee, Gomaree, etc., and (3) Sasaka or an acid extracted from the bones of hares and some other substances. If properly prepared this plate looks like the white cloud. Divide it and number it like the previous dial.

In the centre of this dial fix Kirana grahaka mani of the 157th class. Now fix this dial, with the mani at its centre at the end of the left arm of the glass rod in the topmost of the perpendicular post, so that it may rest a little lower in level than the

*A ghatica = 24 minutes. A vighatica = 24 seconds.

शंकुस्थानाद्दक्षवामपार्श्वयोरुभयोरपि । त्रिंशत्तिंशद्विद्वेखादर्पणान्तावधिक्रमात् ॥
 अहःप्रमाणघटिकान्दक्षरेखास्तयोः क्रमात् । रात्रिप्रमाणघटिकान्त्वामरेखास्तथैवहि ॥
 प्रदर्शयन्तिसंख्यातः तथा विघटिकान् क्रमात् । तेषु दर्शयितुं रेखाश्चतुष्पष्टिविलेखयेत् ॥
 सर्वत्र रेखान्त्यभागे बिन्दून्कसमन्वितान् । स्फुटं विलेखयेत्तद्वत्तदन्तस्सूक्ष्मतस्तथा ॥
 पञ्चाशदंशुलायामं विस्तीर्णतावदेवहि । त्रिंशद्रेखां चितं पश्चादनुलोमविलोमतः ॥
 स्वरूपेभानुवद्भासमानं स्वकिरणैस्त्वतः । प्रभाकरमणिं शुद्धमष्टाशीत्यात्मकं लघु ॥

other dial at the opposite end of the horizontal glass-rod. It must be so fixed as to revolve readily. This plate called Chandramandala is spoken of as the moon so far as this apparatus is concerned.

(6) Then procure a round plate of an alloy, prepared by mixing

9 parts of salt extracted from the grass known as
 Doorva, lotus flowers and so on

10 parts of copper¹

16 parts of gold²

8 parts of Mercury

5 parts of Godantee³ arsenic sulphate

18 parts of the stone known as sooryakanta⁴

and fix it below the sun i. e., at the end of the right hand side glass rod placed in the second hole of Meru Stambha. This is known as Bhanu Phalaka. It resembles a honey comb in appearance and colour.

At the centre of this plate fix as above a mani known as Gharmapaharaka mani belonging to the 164th class.

1. A work on Metallurgy mentions many kinds of Metals of which the first is copper. There are 16 varieties of copper and the 7th of them known as Choolika is to be used in preparing the alloy.

2. There are 12 varieties of gold and the 3rd namely Hiranyaka is mentioned here.

3. When this substance is placed on the back of milch cows while milking, the flow of milk ceases.

4. There are 2 kinds of the sooryakanta stones. When solar rays fall on them, one gives out water and the other flames. It is the second kind of stone that is mentioned here.

धारयन्तंमध्यभागेआतपोष्णादिभिर्युतम् । प्रभाकरादर्शचक्रसूर्यप्रतिनिधिदृढम् ॥
मेरोस्तृतीयरंध्रस्यदक्षकण्डान्त्यकेन्द्रके । त्रिचक्रकीलकैस्सम्यक्स्थापयेद्भ्राम्यतेयथा ॥
पश्चाद्विवाकरादर्शत्रिद्वेखाब्जिन्दुभिर्युतम् । सुधाद्रवशशोषादिद्रावकैश्चसुसंस्कृतम् ॥
एतत्संस्कारतश्श्वेताभ्रवज्रास्वरमद्भुतम् । औकारेणांशुभिश्चैवचन्द्रमण्डलवत्स्थितम् ॥
भ्राजमानंसप्तपंचाशदुत्तरशतात्मकम् । किरणग्राहकमणिदधानंमध्यकेन्द्रके ॥
पंचचत्वारिंशदंगुलयांमवर्तुलंतथा । षोडशोत्तरद्विशतसंख्याकंसुदृढंलघु ॥
निशाकरादर्शचक्रचन्द्रप्रतिनिधिक्रमात् । पूर्ववत्तृतीयरंध्रवामदण्डान्त्यकेन्द्रके ॥
संधारयेत्कीलकाद्यैस्स्वतस्संचाल्यतेयथा । श्वेतदूर्वाकमलपुष्पक्षाराष्टकमतःपरम् ॥
ताम्रषोडशकेचूलीताम्रषोडशकंतथा । द्वादशस्वर्णलोहेषुहिरण्याष्टकमेवच ॥

(7) Then fix Chayapakarshana darpana belonging to the 173rd class and divided and numbered as in the previous cases, at the end of the left side glass rod placed in the second hole of the perpendicular post.

At its centre fix Thamogarbha mani of the 214th class.

(8) Below Bhanuphalaka i. e., at the end of the right side glass rod in the lowest hole of the vertical pole, fix Bhamukha-darsa, divided and numbered and belonging to the 96th of the Bhagarbha variety of glass. In the middle of it fix the mani known as Sobhamukha mani, being the 42nd of that class.

(9) Fix a metallic plate known as Prakasa Stambhana-Chakra, divided and numbered as above and made of an alloy,* at the left end of the lowest of the three horizontal glass rods. At the centre of this plate fix Vallabha mani, the 9th of its class.

* 1. This alloy should be prepared by the combination of the following—

8 parts of a metal known as Khachara being the 11th of that class of metals which are known as Stambhana mukha,

5 parts of salt extracted from the Vegetables known as Bhuchakra, Suramitra, Veerakanda and so on,

4 parts of (Magnet) load-stone,

6 parts of stone known as Rantika.

गोदन्तीतालषट्कंचसूतपञ्चमेवच । सूर्यकान्तशिलाषट्कमेतान्संयोज्यभागशः ॥
 क्रमान्माथिममूषायांसंपूर्याथयथाविधि । कूर्मव्यासटिकामध्येस्थाप्येगालादिभिःक्रमात् ॥
 द्वात्रिंशदुत्तरचतुश्शतकक्ष्योष्णमानतः । गालयित्वायंत्रमुखेतद्रसंपूरयेत्क्रमात् ॥
 उष्णापकर्षकंनमलोहंस्यात्कृतकंततः । तेनप्रकल्पितंभानुफलकंमधुवर्णकम् ॥
 निशाकरादर्शचक्रादपिन्यूनषडंगुलम् । बिन्दुरेखांकनैर्युक्तंअवटद्वयसंयुतम् ॥
 प्रथमावटमध्यस्थपारदेसन्निवेशितम् । चतुष्पष्टयुत्तरशतसंख्याकंभारवर्जितम् ॥
 घर्मापहारकमणिबिन्दुरेखांकनैर्युतम् । दधानंसुदृढसूक्ष्ममेरोरूर्ध्वयथाविधि ॥
 क्रमाद्वितीयरंघ्रत्पदक्षदण्डान्त्यकेन्द्रके । त्रिचक्रकीलकैस्सम्यक्स्थापयेद्भ्राम्यतेयथा ॥
 मणिसंयोगतःपश्चादवटेनिमिषार्धतः । मणिमन्तरतःकृत्वाघनत्वंयातिसूतकम् ॥

(10) Then fix a plate known as Chaya prabha vibhajaka, below the three holes of the perpendicular pole and above the base. This plate must be made of the following—

10	parts of	Anjanika,
12	„	Dhaumya,
16	„	Neelanjana,
24	„	Ruruka,
8	„	Fine sand,
6	„	The bones of jambalika, a kind of bird,
14	„	Mercury,
14	„	Swarna gairika or red chalk having streaks of gold colour,
3	„	Cowries (shells).

In shape this plate must be like two round plates joined together one under each 3 plates attached to the ends of the horizontal bars above. Further the right half of it should be coated seven times with the solution prepared from the following—

- (1) Salts extracted from such drugs as Sooryakanta, Prabha mukhi, Jyotishmati, Ksheerika, Mandapala and Saraswata.
- (2) Metals such as the third kind of copper viz., Ravi and Sasika metal, being the 5th of Ranjita metals, and so on.

एतन्मणिस्सूर्यकिरणप्रकाशोष्णंस्वशक्तिः । समाकर्षतिवेगेनयथास्वाभिमुखंभवेत् ॥
 पश्चात्तदुष्णंवेगेनमण्यावरकपारदम् । गालयत्यतिवेगेनघनीभूतमतःपरम् ॥
 यावन्मात्रंगालयतिमण्यावरकपारदम् । तावन्मात्रंरसस्वस्वरूपमासाद्यकेवलम् ॥
 अवटेस्वपुरोभागास्थितेपततिवेगतः । तन्मणिष्वट्त्रिंशतिकसूक्ष्मदर्पणतस्ततः ॥
 वीक्ष्यतेयदितत्रत्यबिन्दुरेखांकनादयः । दृश्यन्तेहियथापूर्वतत्तत्संख्यानुसारतः ॥
 पारदोष्णंविनिश्चेतुमेतावन्मात्रमित्यतः । एवमुष्णापकर्षकतृणसंदर्शनादपि ॥
 पश्चाच्चतुर्दशोत्तरद्विशतेनयथाविधि । तमोगर्भाख्यमणिनायोजितंभारवर्जितम् ॥
 त्रिसप्तत्युत्तरशतात्मकंयूष्माकृतिततः । छायामुखदादर्शचक्रंबिन्दुरेखांकनैर्युतम् ॥
 मेरोर्द्वितीयरंध्रस्थवामदण्डान्त्यकेन्द्रके । निशाकरादर्शचक्रस्याधस्तात्स्थापयेद्दृढम् ॥
 एतत्सूर्यप्रकाशस्थतमछायापकर्षणम् । कृत्वाविनिश्चयंततत्प्रमाणंचांकनादिभिः ॥
 पश्चाद्द्विचत्वारिंशतिकप्रभामणिनायुतम् । भागर्भादर्शवर्गस्थंषण्णवत्यात्मकंततः ॥

(3) Poisons of sankha, Rakta, Krishna, Sundala and so on.

On this coating spread fine blackish sand that is used to sprinkle on paper after writing in ink to dry up. In the centre of the plate fix a mani called Ravi Chumbuka belonging to the 173rd class.

Similarly the left half of the plate should be given seven coatings with a solution prepared out of the mixture of the component parts of the following—

(1) The salts of such drugs as Krishnavalli, Chaya Mukulita Lajjavati (or drugs whose leaves close themselves when human shadow falls on them), Krishna Chitraka and Bhringaraja.

(2) Metals such as Ghanagarbha, Dhwanthamukhee, Sarpakshee and so on.

(3) Poisons such as Panchamukhee, Gauree, Veera and so on.

On this coating spread the powder of charred Ragi ; on it again powder of indigo and on it the acid of indigo.

स्वच्छंप्रभामुखादर्शबिन्दुरेखांकनैर्युतम् । मेरुस्तंभप्रथमरंघ्रदक्षदण्डान्त्यकेन्द्रके ॥
 त्रिचक्रकीलकैस्सम्यक्स्थापयेद्भ्राम्यतेयथा । किरणोष्णप्रकाशांशं सूर्यस्येतत्स्वभावतः ॥
 पूर्वोक्तभानुफलकात्समाकृष्यस्वशक्तिः । निश्चीयतेतत्प्रकाशप्रमाणंस्वांकनादिभिः ॥
 स्तंभनामुखलोहेषुपश्चाद्वादशकस्यच । क्रमात्स्वचराख्यलोहस्याष्टभागांशकंतथा ॥
 भूचक्रसुरभित्रादिसारपञ्चकमेवच । अयस्कांतस्यचत्वारिषड्भागोरुक्कस्यच ॥
 एतान्संमेल्यविधिवत्तत्तद्भागानुसारतः । पश्चाद्भ्रामणिकमूषामुखमध्येप्रपूर्यच ॥
 पञ्चषष्ट्युत्तरद्विशतकक्ष्योष्णप्रमाणतः । गालयित्वातिवेगेनयंत्रास्येसंप्रपूरयेत् ॥
 एतद्भवेत्कृतकलोहःप्रकाशस्तंभनाभिदः । तेनप्रकल्पितंचक्रंबिन्दुरेखांकनैर्युतम् ॥

In the middle of the plate fix Thamopaharaka mani belonging to the 37th class which catches darkness.

11. On the left half of the above plate fix erect a cylindrical glass vessel 12" in circumference and 24" in height and made of the 122nd kind of glass. Fill it with the solution of the salt of Anjana. Then place in it a graduated and numbered mani made of Anjana acid. On this mani place erect another cylinder shaped like a thermometer 1" in circumference and 30" in height made of Thraulika metal. Let it be duly graduated and numbered. Fill it up with three tolas of black mercury which has undergone 16 purifications.

Thereupon connect the Chayaprabha vibhajaka plate and the bottom of the thermometer with thraulika wire, going round the mani in the acid filled in the glass jar. This is the mechanism.

WORK OF THE SEVERAL PARTS OF THE APPARATUS.

1. CHAYAPAKARSHANA DARPANA.

Since the apparatus is so designed as to cast the light and darkness present in the solar rays on this dial, light on the right half and darkness on the left half, it is possible to measure them and find out their quantity, by observing these divisions.

2. The Divakaradarsa stands for the sun—radiating rays just like those of the sun.

नवसंख्याक्रममिनावल्लभाख्येनराजितम् । प्रकाशस्तंभनाचक्रपञ्चशीत्यात्मकंलघु ॥
 मेरुस्तंभप्रथमकेन्द्रवामदण्डान्त्यकेन्द्रके । त्रिचक्रकीलकैस्सम्यक्स्थापयेत्सुदृढंयथा ॥
 भार्गवदर्पणस्थितकिरणोष्णप्रकाशकम् । एतत्स्वशक्त्यावज्जात्यस्पन्दनंस्याद्यथाक्रमम् ॥
 अथाञ्जनिकदशकंभौम्यद्वादशकंतथा । नीलाञ्जनेषोडशांशंचतुर्विंशांशकरुरोः ॥
 जंबालिकास्थिदशकंशर्कराष्टकमेवच । चतुर्दशांशंसूतस्यनवांशगैरिकस्यच ॥
 वराटिकापञ्चकंचतत्तद्भागानुसारतः । एतान्संयोज्यमूषायांसंपूर्यविधिवत्क्रमात् ॥
 षड्विंशत्युत्तरपञ्चशनकस्योष्णमानतः । गालयित्वाथयंत्रास्थेसेचयेद्यदिवेगतः ॥
 छायाप्रभाविभाजकशेहस्यात्कृतकस्ततः । तेनप्रकल्पितंछायाभाविभाजकपट्टिकाम् ।

3. The Nishakaradarsa stands for the moon—radiating rays like those of the moon. It attracts solar rays and separates the light and darkness present in them. Then it subjects the darkness to the attraction of Chayamukhadarsa below it and the heat to that of Bhanuphalaka below Divakaradarsa. Thus the light is rendered cool, like the moonlight.

4. Bhanu phalaka, with the mani on it catches the heat of the solar rays falling on the plate (moon) and shows the quantity thereof.

At the centre of Bhanuphalaka make a depression and fill it with pure mercury. By the action of the mani the mercury gets solidified. When the heat of the solar rays falls on it the mercury melts so far as the heat reaches, flows in a current and falls into a pit made in front. The amount of mercury melted will be shown by the graduated mark on the mani. By the help of a lens belonging to the 36th class, the graduated line will be clearly seen. This graduation will point out the degree of heat present in the solar rays.

Then place at about $\frac{1}{2}$ an inch to the mani, a kind of grass known as Ushnapakarshana (catching heat) being the 11th of the 3rd class of grass dealt with in a Shastra known as Agatatwalahari. Then the grass catches the heat of the mercury and so it burns into ashes.

यावत्प्रमाणं चक्राणां षण्णामुभयपार्श्वयोः । तावत्प्रमाणं संवल्लप्तां पट्टिकां भारवर्जिताम् ॥
 मेरुस्तंभप्रथमरंध्राधोभागे यथाविधि । पार्श्वद्वयस्थचक्राणां संधिस्थाने न्युसेत्ततः ॥
 सूर्यकांताद्योषधीनां क्षारद्रावकतस्तथा । रक्तसुंडालकृष्णादिगरळद्रावकेन च ॥
 रविरंजिकशशिकादिलोहद्रावकादपि । रक्तसुंडालकृष्णादिगरळद्रावकेन च ॥
 दक्षभागं पट्टिकायास्तत्तवारमुद्गुरुहुः । द्रावकत्रयतः पश्चात्पृथक्पृथग्विलेपयेत् ॥
 शोषयित्वा ततस्तस्मिन्नूषरद्रावकं पुनः । सेचयित्वा तदुपरिसुसूक्ष्मं कृष्णसैकतम् ॥
 विन्यस्य पश्चात्तन्मध्ये चित्रवर्णमनोहरम् । त्रिसप्तत्युत्तरशतसंख्याकमति सुन्दरम् ॥
 रविचुंबुकमणिसंवारयेत्सुदृढं यथा । एवं कृत्वा पट्टिकायास्तस्मिन्कारं दक्षपार्श्वके ॥

By this it will be found out that a particular quantity of heat is required to burn a particular quantity of grass.

The working of this apparatus is treated at length in Agatwatalahari which should be consulted for details.

5. Chayamukhadarpaṇa with the mani on it attracts the darkness of the solar rays falling on the moon. By noting the number of the degree to which the darkness falls, it is possible to measure the quantity of darkness present in the solar rays.

6. Bhamukhadarsa with the mani at its centre, catches the light of the hot rays of the sun in Bhanuphalaka and so it is possible to find out the quantity of the light by noting the degree to which the light spreads.

7. The Prakasa Stambhana chakra with the mani on it will keep the light of the hot rays of the sun present in Bhagarbha plate, without agitation.

8. The right half of the Chayaprabhavibhajaka plate with the mani on it, entirely catches the light of the solar rays, while the left half with the mani on it entirely catches the darkness (of the solar rays). This plate is therefore useful in measuring the quantity of light and darkness of the solar rays.

वामपार्श्वस्यसंस्कारः कथ्यतेयथाकूमम् । कृष्णवल्ल्याद्योषधीनांक्षारद्रावकतस्तथा ॥
 घनगर्भादिलोहानांत्रयाणांद्रावकादपि । गौरीवीरादिगरळद्रावकैश्चयथाकूमम् ॥
 मुहुर्मुहुस्सप्तवारंवामभागार्धपट्टिकाम् । लेपयित्वाथसंशोष्यपश्चात्तदुपरिक्रूमात् ॥
 दुर्गंधकृष्णधान्यस्यचूर्णसंदापयेत्ततः । नीलीचूर्णतदुपरिनिक्षिपेत्सप्रमाणतः ॥
 पश्चात्संसेचयेत्तस्योपरिताद्रावकेनच । तमोपकर्षकमणिस्सप्तत्रिंशात्मकंशुचिम् ॥
 तस्यमध्येयथाशास्त्रंस्यापयेदचलंयथा । पट्टिकादक्षभागस्थमणिः पश्चात्स्वशक्तितः ॥
 ऊर्ध्वभागस्थपट्टिकैर्म्रोत्सम्यग्विभाजितम् । सूर्यकिरणप्रकाशं समाकृष्यातिवेगतः ॥
 पट्टिकादक्षभागेययोजयेदचलंक्रूमात् । वामपार्श्वस्थमणिरप्येवंवेगात्स्वशक्तितः ॥
 सूर्यकिरणप्रकाशस्थितच्छायापकर्षणम् । कृत्वातद्वामभागस्थपट्टिकायांनियोक्ष्यति ॥
 एतेनकिरणप्रकाशप्रमाणविनिर्णयः । पट्टिकादक्षिणेश्चैवामपार्श्वेतथैवच ॥
 भवत्यंशुप्रकाशस्थच्छायाप्रमाणनिर्णयः । द्वादशांगुलमायामंद्वाविंशदंगुलोज्जतम् ॥

THE OPERATION.

Now the plates should be made to revolve by means of electricity charged in wires, as directed below:—

When the first degree of the plate of sun meets the first degree of the plate of moon, the latter attracts one "Kala" of the solar plate and retains it within itself. When again the Bhanuphalaka and the plate of moon are made to revolve so that their first degrees meet in a line, the Bhanuphalaka attracts the darkness of the solar rays present in the moon and by means of its first degree keeps it (the darkness) motionless.

Again when Bhanuphalaka and chaya mukhadarsa are made to revolve so that their first degrees meet, the latter attracts the darkness present in the Bhanuphalaka. Then the acid in the glass vessel placed on chayaprabha vibhajaka plate, attracts this darkness; just as water catches the shadow of a tree. Thereupon the Anjana mani in it attracts the darkness towards it through the wire and makes it entirely dark. Then the black mercury in the thraulika cylinder attracts the darkness through the wire and thereby increases in volume and rises up in a

द्वाविंशदुत्तरशतात्मककाचविनिर्मितम् । पात्रमेकं यथाशास्त्रं स्थापयेत्सुदृढं यथा ॥
 छायाप्रभाविभाजकपट्टिकावामपार्श्वके । पश्चात्संपूरयेत्तस्मिन्नंजनक्षारद्रावकम् ॥
 कृष्णवर्णीकाचमणिमंजनक्षारकल्पितम् । तत्पात्रमूलदेशे यथापयेद्द्रावकान्तरे ॥
 पश्चाद्रेखांकनैर्युक्तं त्र्यौल्लिकादर्शनिर्मितम् । चतुरंगुलमायमं विंशत्यंगुलमुन्नतम् ॥
 तस्मिन्बोडशसंस्कारैस्संस्कृतं कृष्णपारदम् । पश्चात्पलत्रयं शुद्धं पूरयेत्संप्रमाणतः ॥
 पश्चादंगुलगात्रां त्र्यौल्लिकलोहविनिर्मिताम् । छायाप्रभाविभाजकपट्टिकादियथाकृमम् ॥
 एकांतन्त्रीसमाहृत्य पात्रस्थद्रावकान्तरे । अंजनक्षारमणिमावृत्य नाळमुखान्तरे ॥
 प्रवेशयित्वा तत्रत्यपारदे सन्निवेशयेत् । मेरोरुभयपार्श्वस्थचक्राणां तदनन्तरम् ॥
 बिन्दुसंख्यानुमारेण सूर्याचन्द्रमसोः कृमात् । यथारेखांकनासंघिर्भवेत्साकेततस्स्फुटम् ॥

column and stops at a particular degree. This degree points out the amount of darkness in it.

Thus the 13th limb of the machine to measure the quantity of darkness has been explained.

Now the various measures of calculating the quantity of darkness will be given below.—

Following are the names of some of the measures used in the measurement of darkness.—

1. Aleeka ; 2. Kaulika ; 3. Randhra ; 4. Manda ;
5. Bimboka ; 6. Veechaka ; 7. Thamasa ; 8. Raunika ;
9. Kuta ; 10. Stambha ; 11. Shambara ; 12. Manchura ;
13. Guchchaka ; 14. Kudupa ; 15. Gulika ; 16. Chetika ;
17. Padma ; 18. Mandala ; 19. Kanchura. etc.

TABLE OF MEASUREMENT OF DARKNESS

The darkness of 125 Kakshyas (degrees) is known as a Bindu.

5 Bindus make 1 Aleeka	15 Stambhas make 1 Shambara
3 Aleekas „ 1 Kaulika	18 Shambaras „ 1 Manchura
5 Kaulikas „ 1 Randhra	18 Manchuras „ 1 Guchchaka
8 Randhras „ 1 Manda	20 Guchchakas „ 1 Kudupa
10 Mandas „ 1 Bimboka	28 Kudupas „ 1 Gulika
20 Bimbokas „ 1 Veechaka	30 Gulikas „ 1 Chetika
10 Veechakas „ 1 Thamasa	23 Chetikas „ 1 Padma
8 Thamasa „ 1 Raunika	32 Padmas „ 1 Mandala
12 Raunikas „ 1 Kuta	28 Mandalas „ 1 Kanchura
10 Kutas „ 1 Stambha.	The table continues further.

तथाविद्युत्सहायेनभ्रामयेत्सप्रमाणतः । सूर्यस्यप्रथमरेखाकलांसोमकलास्वतः ।
 समाकृष्यस्वभावेनस्वस्मिन्संधार्यतेस्वतः । पश्चात्तद्भानुफलकतोममंडलयोः क्रमात् ॥
 भवेत्प्रथमरेखांकनासंधिः पूर्ववद्यथा । तथासंभ्रामयेत्सम्यक्तेनचन्द्रमसिस्थितम् ।
 वेगात्तत्सूर्यकिरणस्थितछायांयथाकूमम् । आकृष्यभानुफलकस्वस्यप्रथमरेखया ।
 तच्छायां धार्यतेसम्यक्क्रमादस्पन्दनंयथा । पश्चात्तद्भानुफलकस्यादिरेखांकनामुखम् ।
 अनयोर्मुखयोस्संधिः परस्परंयथाभवेत् । संभ्रामयेद्यथाविद्युत्कीलसंबंधतः क्रमात् ।
 ततस्तद्भानुफलकस्थितछायांस्वशक्तितः । स्वयंछायामुखादर्शस्समाकृष्यातिवेगतः ।
 यथास्यात्स्तंभनंस्वस्मिन्तथासंधार्यतेक्रमात् । यथाजलंतीरवृक्षछायांसमपकर्षति ।
 तथाछायामुखादर्शस्थितछायांस्वभावतः । पूर्वोक्तकाचपात्रस्यद्रवस्समपकर्षति ।
 पश्चात्तत्रस्थितांजनमणिस्तंत्रीमुखान्तरात् । तच्छायामपकृष्याद्यतमोरूपंप्रकल्प्यति ।
 ततस्त्र्यळिकनाळस्यपारदः कृष्णवर्णकः । तंत्रीमुखात्समाकृष्यतत्तमस्स्वीयतेजसा ।
 समुत्थायत्र्यळिकनाळेयद्यद्रेखांकनान्तरे । स्वस्थानादूर्ध्वमागत्यस्पीयतेतमसासह ।
 तत्तद्रेखांकनैस्सम्यक्प्रमाणं तमसः क्रमात् । निर्णेतुंशक्यतेतस्मात्तदंगोत्रप्रदर्शितः ।
 प्रमाणविधिरप्यत्रसंकेतात्सोच्यतेधुना ॥

॥ तमः प्रमापकसंख्या सांकेतनिर्णयः ॥

अळिकं कौळिकं चैव रन्ध्रं मण्डमतः परम् । बिम्बो कंवी चक्रमयतामसरौणिकं कुटम् ॥
 स्तंभं शंवरं मंछूरं गुच्छकं कुडुपंतथा । गुळिकं छे टिकं पद्मं मण्डलं कंचुकंतथा ॥

इत्यादि ॥

Having thus explained the term Kanchuka occurring in the Aphorism, we shall now quote the 83rd Axiom mentioned therein and explain it briefly.

THE 83RD AXIOM:—

If a thing is subjected to the action of two forces of unequal degrees, it is natural that the lesser of them is attracted by the greater force. This is the axiom.

पञ्चविंशच्छतकस्य तमो बिन्दुरिति र्थते । तत्पञ्चकमलीकं स्यात्पूलीकं कौळिकं भवेत् ॥
 रंभ्रंतत्पञ्चकं विन्धान्मण्डंतस्याष्टकं विदुः । तन्मण्डदशकं बिम्बो कमिति प्रोच्यते तथा ॥
 तद्विंशतिर्वीचकं स्यात्तामसंतद्विंशस्तथा । तदष्टकरौणिकं स्यात्कुटंतद्वादशेति च ॥
 तंतस्तद्विंशकं स्तंभमिति संकीर्त्यते क्रमात् । तत्स्तंभपञ्चदशकं शंबरस्यात्तथैव हि ॥
 शंबरस्याष्टदशकं मंछूरमिति कीर्तितम् । तदष्टदशकं तद्बहुच्छमित्यभिधीयते ॥
 कुडुपंतद्विंशतिस्स्यात्तदष्टाविंशतिक्रमात् । प्रोच्यते गुळिकमिति तत्त्रिंशच्छेदिकं स्मृतम् ।
 छेदिकस्य त्रयोविंशत्पद्ममित्यभिधीयते । तत्पद्मद्वात्रिंशतिर्मण्डलमित्युच्यते तथा ॥
 तन्मण्डलाष्टविंशत्कंचुकमित्यभिधीयते ॥

इत्यादि ॥

एवमुक्त्वा कंचुकप्रमाणंतद्वद्यथाविधि । त्र्यशीतिकस्वतस्सिद्धन्यायमत्र निरूप्यते ॥

॥ स्वतस्सिद्धन्यायसूत्रम् ८३ ॥

**यस्मिन्न्यूनाधिकत्वं शक्तिद्वयस्य तस्मिन्नधि
 नान्यूनग्रहणं सहजम् ॥**

॥ विश्वभरवृत्तिः ॥

योवाकोवाभवेद्वस्तुतस्मिन्शक्तिद्वयं यदा । प्राप्नोत्यन्योन्याश्रयत्वं न्यूनाधिकस्वभावतः ॥
 तयोरधिकशक्त्या तन्न्यूनशक्त्यपकर्षणम् । सहजं स्यात्तदा तस्मिन्नितिन्यायनिरूपणम् ॥
 एवं नवमसूत्रार्थस्सप्रमाणाद्यथाक्रमम् । अत्यन्तसंग्रहादत्र यथामतिनिरूपितः ॥

The meaning of this axiom, according to the commentary of Viswambhara is this:—

When two forces in different degrees are present in anything it is but natural that the greater force should attract the lesser one.

In this way, the 9th Aphorism has been briefly explained to the best of our knowledge.

॥ सूत्रम् १० ॥

॥ ध्वान्तद्वयसंयोगेऽद्वितसान्निध्यात्तैविध्यं
तमसः ॥

॥ बोधानन्द वृत्तिः ॥

पूर्वसूत्रेकंचुकतमोत्पत्तिस्सनिरूपितः । तथाध्वान्तत्रयोत्पत्तिस्सूत्रेस्मिन्प्रतिपाद्यते ॥
ध्वान्तत्रैविध्यबोधकपदान्यस्मिन्चतुःक्रमात् । ध्वान्तद्वयसमायोगस्तत्रादिमपदात्स्मृतः ॥
द्वितीयपदतस्तद्वच्चित्सान्निध्योनिरूपितः । तृतीयपदतोऽध्वान्तत्रैविध्यं सन्निरूपितम् ॥
ध्वान्तस्वरूपमुक्तं स्याच्चतुर्थपदतस्तथा । पदार्थमेवंकथितं संग्रहेण यथाक्रमम् ॥
सामान्यार्थस्य सूत्रस्य इदानीं सन्निरूप्यते ॥

THE TENTH APHORISM.

The two kinds of darkness combine together and become one which, on account of the presence of Atma reflected in it, splits itself up into three parts. This is the aphorism.

THE COMMENTARY.

Having explained the word Kanchuka in the previous aphorism, we shall, in the present one, explain how the aggregate of darkness resolves itself into three divisions.

This aphorism is composed of four words dealing with the three kinds of darkness. The combination of the two kinds of darkness, is suggested by the first word. The presence or proximity of the reflected image of Chit is expressed by the second word. The nature and characteristics of the three kinds of darkness are indicated by the third word. Lastly, Tamoguna is named by the fourth word. Having explained the significance of the words of the aphorism we shall now proceed with its general sense.

THE GENERAL SENSE.

It has been stated already that darkness is of two kinds—Avarana tama and Kanchuka tama. Avarana tama is the darkness in the form of a halo or covering to the reflected image

॥ सामान्यार्थः ॥

कञ्चुकावरणभेदाद्द्विविध्यंतमसः क्रमात् । यदुक्तं शास्त्रतः पूर्वतयोरावरणंतमः ॥
 प्रोक्तं प्रावयिकमिति द्वितीयमिति कञ्चुकम् । तयोरावरणध्वान्तसत्त्वसंबन्धतः क्रमात् ॥
 पुरुषमिति तत्त्वज्ञैश्शास्त्रतः प्रतिपादितम् । अपरं कञ्चुकतमो ध्वान्तसंबन्धतस्तथा ॥
 स्त्रीस्वरूपमिति प्रोक्तं तत्त्वविज्ञानपारदैः । अनयोर्भेदनमभूच्चित्सांनिध्यबलात्ततः ॥
 तस्मात्त्रिधा तत्तमो भूत्तिगुणाकारतः क्रमात् । एवमुक्तं संग्रहेण सामान्यार्थो यथामति ॥
 विशेषार्थोऽयमुक्तस्य संग्रहेण निरूप्यते ॥

॥ विशेषार्थः ॥

त्रैविध्यमिति यत्प्रोक्तं सूत्रेस्मिन्तमसः क्रमात् । तदेव शास्त्रतस्सम्यक्संक्षेपादत्र वर्ण्यते ॥

॥ तदुक्तं ध्वान्तविज्ञानभास्करे ॥

चित्तिचैत्यस्पन्दनेन सृष्ट्यादावेकमेव हि । तमः प्रादुरभूद्वेगात्तमस्यैवैकत्वम् ॥
 तमेव मूलप्रकृतिरित्याहुर्ज्ञानवित्तमाः । तमआसीदिति प्राह तमेव हि सनातनी ॥

of Chit (Atma) and is said to be the original or the first variety of darkness. Kanchukatama is the darkness attracted by the greater force of Satwa halo of the reflected image of Chit, the quantity having been fixed in the previous aphorism and is said to be the second variety of darkness. Further, the learned declare that the former on account of its contact with Satwa, is said to be masculine in nature while the latter, on account of its contact with darkness, is said to be feminine. These two kinds of darkness, by the presence of the reflected image of Chit, mix together and the product gets split up into the three parts viz., Satwa, Raja and Tama. This is the import of this aphorism. .

THE DETAILED EXPLANATION.

The triple division mentioned in connection with darkness in this aphorism, needs further explanation. For this purpose we shall quote Sharikanatha who deals with this point in his scientific work, Dhwantha Vijnana Bhaskara, thus.

At the beginning of creation, in Paramatma who is in the form of Chit, on account of the agitation of Chaitya Shakti, the

पश्चात्तस्मिन्चित्प्रकाशस्वभावात्प्रतिबिम्बितः । तत्सान्निध्यबलान्मूलप्रकृत्यामतिवेगतः ॥
 अन्धतमोगूढतमस्तमश्चेतियथाक्रमम् । तमांसित्रीण्यजायन्तचित्प्रभामिश्रितानिहि ॥
 त्रिगुणादितान्येवप्रवदन्तिमनीषिणः । सत्त्वरजस्तमइतिगुणाःप्रकृतिसंभवाः ॥
 तमःप्रभामिश्रितंयत्तेषुसत्त्वमितीर्यते । गूढतमइतिप्राहुस्तमेवज्ञानवित्तमाः ॥
 सत्त्वेतमोमिश्रितंयत्तद्रजोगुणइत्यभूत् । तमेवपूर्वोक्ततमइतिप्राहुर्मनीषिणः ॥
 तमोगुणइतिप्राहुःप्रकृतिध्वान्तमिश्रितम् । तमेवान्धतमइतिशास्त्रतःप्रतिपादितम् ॥
 यत्सत्त्वगुणइत्युक्तंतद्विद्येतिप्रकीर्तितम् । यद्रजोगुणइत्युक्तंतद्विद्येतिनिर्णितम् ॥
 विक्षेपावरणशक्तिस्वरूपस्यात्तमोगुणः । एवंप्रकृत्यातमसस्त्रैविध्यमभवत्क्रमात् ॥
 प्रतिबिम्बितप्रकाशसान्निध्यादेवकेवलम् । एवंप्रकृत्यातमसस्त्रैविध्यंसूत्रतस्मृतम् ॥
 एवंदशमसूत्रार्थस्संग्रहेणनिरूपितः ॥

original darkness came to existence without coming into contact with Paramatma. This darkness is said to be Moola Prakriti. It is this darkness that is mentioned in the Sruti by such passages as "At the beginning of creation darkness came to existence" and so on. The radiance of Chit thereupon naturally reflected in it. By virtue of the presence of this radiance the darkness or Prakriti resolved itself into three different parts viz., Goodham Tama, Tama and Andham Tama. The learned call them the three gunas, Satwa, Raja and Tama respectively. That darkness whose presence is not felt on account of the predominance of light, is known as Satwa or Goodham Tama. When additional darkness combines with Satwa, the resulting darkness is said to be Raja or merely Tama. When again the darkness combines together with Moola Prakriti, the product is said to be Tamoguna or Andham Tama.

Further the Satwaguna is also known as vidya or knowledge or wisdom, and Rajoguna as ignorance, while the Tamoguna is said to be the creator of illusion whereby right is shown as wrong and visible is rendered invisible. This is how the three kinds of darkness manifested in Prakriti.

Thus ends the detailed explanation of the tenth aphorism.

॥ सूत्रम् ११ ॥

॥ तदावरणद्व्यक्तत्वंचितेः ॥

॥ बोधानन्द वृत्तिः

उक्तध्वान्तत्रयोत्पत्तिः प्रकृत्या पूर्वसूत्रतः । उच्यते व्यक्तत्वमस्मिन्तदावरणतश्चितेः ॥
 अव्यक्तबोधकपदान्यस्मिन्त्रीणियथाक्रमम् । पदच्छेदनतस्सम्यङ्निर्णितानि प्रमाणतः ॥
 तत्रादिमपदाद्धान्तावरणसमुदीरितम् । द्वितीयपदतो व्यक्तस्वरूपस्सन्निरूपितः ॥
 प्रतिबिम्बचित्स्वरूपस्तृतीयपदतस्समृतः । पदार्थमेवमुक्त्वाऽस्य सामान्यार्थो निरूप्यते ॥

॥ सामान्यार्थः ॥

पूर्वोक्तत्रिविधध्वान्तावरणादेव केवलम् । प्रतिबिम्बचितेऽस्म्यगव्यक्तत्वमभूत्क्रमात् ॥
 एवमुक्तसंग्रहेण सामान्यार्थोऽयथा मतिः । विशेषार्थोऽसूत्रस्य यथाशास्त्रं निरूप्यते ॥

THE ELEVENTH APHORISM.

By virtue of the coverings of the three kinds of darkness mentioned in the previous aphorism, the radiance of Chit reflected in Satwa, gets the state of Avyakta. This is the aphorism.

THE COMMENTARY.

The process of emanation of the three kinds of darkness has been explained in the previous aphorism. In this 11th aphorism, how on account of the coverings of the above three kinds of darkness, the image of the radiance of Chit reflected in Satwa, gets the state of Avyakta, will be explained.

To explain the manifestation of Avyakta, three words have been employed in this aphorism. The coverings of darkness (expressed by the first word) are the cause for the evolution of Avyakta (mentioned by the second word) resulting to the image of the radiance of Chit reflected in Satwa (denoted by the third word).

THE GENERAL SENSE.

It is only through the coverings of the three kinds of darkness viz., Goodham Tama, Tama and Andham Tama explained above, that the condition of Avyakta resulting to the image of Chit reflected in Satwa. This is the purport of the aphorism.

॥ विशेषार्थः ॥

॥ तदुक्तसृष्टिविलासे ॥

निर्विकारस्वरूपत्वान्निर्गुणत्वात्तथैव हि । सर्वावभासकत्वाच्च नित्यत्वात्परमात्मनः ॥

अव्यक्तत्वं तथा ध्वान्तावरणवायथाक्रमम् । कथं नु घटते वक्तुमिति चेत् सन्निरूप्यते ॥

श्रुत्यामात्मप्रकाशस्य विवृतत्वं यदीरितम् । तन्न सिध्यत्यद्वयत्वाद्दिनावस्त्वन्तरं स्वतः ॥

सत्त्वं रजस्तमोगुणसाम्यरूपामहत्तरा । तमोरूपाप्रभामिश्रकृष्णदर्पणवत्स्थिता ॥

THE DETAILED EXPLANATION.

For this purpose we shall quote Srushti Vilasa wherein this point has been dealt with at length.

In this work, the author imagines an opponent who raises an objection to the above point and argues with him. This is the objection raised by the opponent.

“Well, you say that the light of Chit or Paramatma gets not only the coverings but also the state of Aavyakta. Well, Atma is attributed with epithets such as absolute, changeless in form, unaffected by the gunas, capable of illuminating everything, eternal, unconditioned and so on, which are a prima facie evidence that he does not suffer himself to be affected by any condition and to appear in any form other than his natural, absolute or formless state. Therefore, it is wrong to ascribe either the condition of (being surrounded with the) coverings of darkness or of aavyakta, to Atma.” The author refutes this objection and establishes his own proposition thus.

“Well sir, your objection is sane indeed. But the answer is not far to seek. It is this: Sruti attributes the state of Aavyakta or manifestation in an expanded form to Atma. This expansion cannot accrue to the Atma without the necessity of a second object other than Atma; for it is impossible as stated in the 5th axiom. So, in accordance with this axiom such a second object evolves from out of Atma himself without prejudice to his attributes, thus.

“Atma it must be borne in mind, is the storage of all kinds of powers which are natural to and inseparable from him

आत्मशक्तिस्वभावादेवैकांशेपरमात्मनः । तमस्यष्टैवाविरभूत्पद्मपत्रमिवाभसा ॥

यदंशेप्रकृतिर्जातातदंशः परमात्मनः । प्रतिबिम्बत्वमभजत्तत्प्रकृत्यांस्वरूपतः ॥

प्रतिबिम्बप्रकाशप्रवेशादेवगुणास्त्रयः । परस्परंविभिन्नास्युस्तत्प्रकाशेनसंयुताः ॥

शुक्लवर्णमवेत्सत्त्वं रक्तवर्णमवेद्रजः । कृष्णवर्णमवेत्तेषुतमइत्युच्यतेबुधैः ॥

One of them viz., Tama Shakti evolved in one quarter of Atma and manifested itself there without coming into contact with Atma, just as water with the lotus leaf. This power maintains equilibrium of the three gunas Satwa, Raja and Tama. It is also in the form of a wonderful darkness and is like a dark glass full of light. That quarter of Atma wherein the darkness or prakriti evolved and manifested, reflected itself in that Prakriti. It is only by the penetration of the radiance of this reflected image through Prakriti that the three gunas Satwa, Raja and Tama, present in it, get separated, each carrying the said light with it. The learned declare that Satwa is of white colour; Raja, red, and Tama, dark or black. When this darkness splits itself up into three divisions and exists separately in three different innate colours, they are called 'Gunas' and when they combine together and exist in an equipoise, they are known as Prakriti. These three kinds of darkness, split as said above, then surrounded the light of the image of Chit naturally on all sides. Of these that which surrounded the image of Atma first is known as Goodham Tama. The second kind of darkness then formed itself the second covering to that image over the first one and is known as Tama. The third one thereupon formed itself the third halo to the said image over the second and is known as Andham Tama. Thus the image of Atma reflected in Satwa gets the three coverings one over the other and this happens by the natural power of Atma himself but not with the help of any external object.

"Again when the radiance of the reflected image of Atma gets itself enclosed with the three coverings of darkness as said above, it becomes imperceptible or gets the condition of avyakta, on account of the density of the surrounding

एवंवर्णत्रयोपेतंतमः प्रकृतिरुच्यते । तेष्व्वात्मप्रतिबिम्बस्वरूपगूढंतमः क्रमात् ॥
 आदौ समावृणोत्पश्चादासमंतात्ततः परम् । अवृणोत्सामान्यतमस्ततस्तदुपरिक्रमात् ॥
 समावृणोदन्धंतमस्तथैवस्वीयतेजसा । ध्वान्तत्रयावरणमेवं उपर्युपर्यथाक्रमम् ॥
 सत्त्वस्थप्रतिबिम्बस्य स्वसान्निध्यबलाद्भूत् । तद्वावरणतोव्यक्तत्वं सरुद्रः प्रपेदिरे ॥
 इत्येकादशसूत्रार्थस्संग्रहेनिरूपितः ॥

इत्यादि ॥

॥ विशेषार्थः ॥

सूत्रेपञ्चस्वतस्सिद्धन्यायमित्यदुदीरितम् । तत्संगृह्यात्रविविधयाशास्त्रंनिरूप्यते ॥

॥ स्वतस्सिद्धन्यायसूत्रम् ५ ॥

॥ स्वस्यस्वव्यतिरिक्ताभावात्स्वत्वन्न ॥

॥ विश्वंभर वृत्तिः ॥

स्वयमेवस्वस्यस्वत्वंद्रष्टृश्रोत्रदिभिर्विना । वक्तुंनघटतेलोके अद्वयस्यैकवस्तुनः ॥
 द्वितीयवस्त्वपेक्षातःसंभवत्येवनान्यथा । देवदत्तस्वयंयातीत्यत्रद्रष्टारमन्तरा ॥

darkness, produced by the power of the image of Atma.

“Thus it has been established that Atma gets not only the three coverings of darkness but also the condition of avyakta, without prejudice to such epithets as absolute, formless etc., natural to him. In this way the objection raised falls to the ground”.

THE FIFTH AXIOM.

No object can assert the existence of itself in the absence of an external thing. This is the aphorism.

THE COMMENTARY.

If, in this world, a thing exists alone without a second object which feels the existence thereof such a one without a second thing cannot itself assert the existence of itself. For the statement “Devadatta is going” is possible only when there is a second person who sees Devadatta going and is impossible

वक्तुंनसंभवेद्यत्तात्पर्यमिदंनसंभवावतः । देवदेवतसेवज्ञदत्तसंभवावतयेवहि ॥
तत्तात्पर्यस्यैवविरिक्तवत्त्वभावात्कदापिना । वक्तुंनसंभवेत्त्वत्वमितिन्यायनिरूपणम् ॥

॥ सूत्रम् १२ ॥

॥ जन्यत्वादावरणत्वं जडत्वादप्रमशत्वं च-
तमसः ॥

॥ बोधानन्द कृतिः

पूर्वसूत्रेचितेध्वान्तावरणंसन्निरूपितम् । तमसोस्मिन्बाधस्याव्यक्तकारणमुच्यते ॥
तत्कारणप्रबोधकपदान्यस्मिन्यथाक्रमम् । पञ्चसम्यङ्निर्णयितानितेषामर्थोभिधीयते ॥

in the absence of such a seer. To assert either the existence of Devadatta or his action viz., going, therefore a second person, Yajnadatta, for instance is essential. Thus this axiom lays down as a self-evident truth that no assertion of the existence of a certain thing is possible in the absence of a second object other than the thing itself.

Thus ends the detailed explanation of the eleventh aphorism.

THE TWELFTH APHOBISM.

The property of spreading on and forming a Covering to objects and also of rendering them not visible is attached to darkness, on account of its being one that is produced and of being inert, respectively. This is the aphorism.

THE COMMENTARY.

The previous aphorism has explained how the darkness formed itself a covering to the image of Chit reflected in Satwa. This aphorism aims at explaining how Atma is caused to be circumscribed by the darkness and how the state of Avyakta results to Atma.

This aphorism consists of five words dealing with the cause for Avyakta. The first word states that darkness is, by

अन्धकारस्यजन्यत्वं तत्रादिमपदात्स्मृतम् । द्वितीयपदतस्तस्यापरकत्वं निरूपितम् ॥
 तृतीयपदतस्तद्वज्जडत्वं सन्निरूपितं । एवंप्रकाशत्वं चतुर्थपदतस्स्मृतम् ॥
 तथैवपञ्चमपदात्तमोरूपं प्रदर्शितम् । समुच्चयनिरूपार्थचकारोत्रनिरूपितः ॥
 पदार्थमेवमुक्त्वाऽस्य सामान्यार्थोऽधुनोच्यते ॥ .

॥ सामान्यार्थः ॥

सच्चिदानन्दरूपस्य नित्यस्य परमात्मनः । प्रकाशस्वस्वरूपत्वात्तस्याजन्यत्वमीरितम् ॥
 अग्नीषोमात्मिकाशक्तिस्तस्मिन्नेकांशतः क्रमात् । तमोरूपेण संजाता जले बुद्बुदवत्स्वतः ॥
 अतो जडत्वं जन्यत्वं प्रकृतेः सहजं स्मृतम् । स्वयंप्रकाशमानत्वादजन्यत्वद्विशेषतः ॥
 चित्प्रकाशस्वभावेन बाह्याभ्यन्तरतः क्रमात् । प्रकाशयते स्वेतरांश्च चेतना चैतनात्मकान् ॥

nature, one that is produced. The second word declares the darkness has the property of pervasion. The third word denotes that it (darkness) is inert. The fourth word says that it is not self-luminous. The fifth word mentions Tamoguna. The word 'Cha' is used conjunctively. This is the meaning of the words of the aphorism severally.

THE GENERAL SENSE OF THE APHORISM.

Since Paramatma is Sachidananda i.e., Sat or not limited by time past, present and future, Chit or self-effulgent and Ananda or highest bliss and also eternal, effulgence is identical with him. This effulgence of Brahma has therefore no condition of being born. From out of a quarter of this splendour (of Brahma) Agnishoma power which is in the form of darkness, evolved just as a bubble in water. Therefore, Prakriti which is in the form of the above darkness is said naturally to possess the two qualities viz., of being produced and of being inert. The effulgence of Paramatma inasmuch as it is naturally self-existent—not having to be produced and self-luminous—not having to borrow splendour from other sources—penetrates, by virtue of its inherent power of penetration, in

तमस्त्वभानरूपत्वाज्जन्यत्वाच्चस्वभावतः । जडत्वात्स्वेतरान्सर्वान्प्रकाशयितुमक्षमः ॥
 अतस्तान्चेतनाचेतनाकारान्जगतिस्थितान् । व्यक्तानपिस्वावरणात्समाञ्छाद्यविशेषतः ॥
 अव्यक्तत्वंकल्पयतिस्वस्वरूपान्धकारतः । एषएवास्यतमसःकृत्यमित्यभिधीयते ॥
 तस्मात्स्वयंप्रकाशोपिपरमात्मानिरञ्जनः । अन्धकारंस्वावरणात्तमाच्छाद्यस्वभावतः ॥
 स्वयंव्यक्तस्वरूपोप्यव्यक्तत्वंचप्रकल्पयत् । एतेनान्तश्चित्प्रकाशोऽहिर्गूढंतमस्स्मृतः ॥
 अतोव्यक्तमितिप्राहुःपरमात्मानमव्ययम् । अव्यक्तोनामाव्याकृतनामरूपादवस्थितिः ॥
 स्वयंप्रकाशमानत्वाद्भासयन्तत्तमस्स्वयम् । आत्मैवासङ्गभावेनतमस्पृष्ट्वास्वयंक्रमात् ॥
 तदावरणमध्येव्यक्तस्वरूपात्मनास्थितिः । इतिद्वादशसूत्रार्थस्संग्रहेणनिरूपितः ॥

and out of the universe consisting of animate and inanimate objects and illuminates them so that they may appear clearly. Contrarily since darkness is not endowed with brilliance, is, by nature, one that is born and is inert, it can neither penetrate into the objects nor illuminate them. It therefore pervades the objects of the universe, surrounds them, and with its covering, renders them invisible though they are, by nature, ever visible. This is said to be the action of darkness. Further this darkness covers up even Paramatma who is self-luminous not affected by Maya and ever visible and renders him invisible or Avyakta. By this it must be noted that the covering of Avyakta has Atma within and Goodham Tama without. It is by being covered with this darkness that Atma who is ever visible is said to be Avyakta. Avyakta is existence only in name and form which are invisible. In conclusion, it must be noted that Parabrahma, on account of his self-effulgence, illuminates the darkness also and remains in the form of the said Avyakta, within the enclosure of the darkness, without ever coming into contact with it.

This is the general sense of the twelfth aphorism.

॥ सूत्रम् १३ ॥

॥ ध्वान्तोपाधिलयास्तद्व्यप्रतिबिंबयोरेकत्वं पूर्वस्मिन् ॥

॥ बोधानन्दवृत्तिः ॥

प्रतिबिंबचितेः पूर्वसूत्रेव्यक्तत्वकारणम् । निरूपितमभूदस्मिन्सूत्रे तद्व्यथाक्रमम् ॥
रजस्तमध्वान्तलयाद्विबैकत्वं प्रचक्षते । प्रतिबिंबैक्यबोधकपदान्यस्मिन्व्यथाक्रमम् ॥
चत्वारि निर्णिता निस्त्युः पदच्छेदनतस्स्पुटम् । तत्रादिमपदाध्वान्तद्वयोपाधिलयस्स्मृतः ।
तन्निष्ठात्मप्रतिबिंबद्वयमुक्तं द्वितीयतः । तृतीयपदतस्तद्व्यप्रतिबिंबैक्यं प्रदर्शितम् ॥
सत्त्वाभासोऽव्यक्तगतश्चतुर्थपदस्स्मृतः । पदार्थमेवमुक्त्वाऽथ सामान्यार्थो निरूप्यते ॥

THE THIRTEENTH APHORISM.

When the upadhis of darkness in the form of Raja and Tama merge into the darkness of the second covering of the image of Chit reflected in Satwa, the images of Atma reflected in them also merge in the image reflected in Satwa. This is the aphorism.

THE COMMENTARY.

How the state of Avyakta was caused to Paramatma reflected in Satwa has been explained in the previous aphorism. In this aphorism will be explained how the images reflected in Raja and Tama which are in the form of Upadhis get merged or melted consequent on the merging of these Upadhis.

In this aphorism there are four words which deal with the process of the merging of the reflected images. By the first word the merging or melting of the darkness of Raja and Tama which are upadhis to the reflected image of Chit, is meant. The two images reflected in Raja and Tama are denoted by the second word. Union of these two images is stated by the third word.

॥ सामान्यार्थः ॥

त्वं ब्रह्मात्मो रूपगुणास्तिस्वभावतः । उपाधिप्रयमित्युक्तं प्रतिविंबात्मनः क्रमात् ॥
 तेषु सत्वोपाधितो रुद्र इत्यभिधीयते । ब्रह्मरजोपाधितस्तमोपाधितो हरिः ॥
 उपाधिप्रयसंयुक्ता ह्येतेऽस्य गुणमूर्तयः । रुद्रद्वितीयावरणे सत्वचित्प्रतिविंबयोः ॥
 सान्निध्यबलतोऽत्यन्तवेगस्तमभवत्स्वतः । तेनापकर्षिते ध्वान्ते तमोरजस्वरूपके ॥
 रुद्रद्वितीयावरणे विलयं प्रापतुः क्रमात् । ध्वान्तद्वयोपाधिलया तत्र त्रयप्रतिविंबयोः ॥
 पूर्वोक्तसत्वप्रतिविंबस्वरूपेऽयमेव भावतः । अविनाभावतस्तस्य गोकत्वमभवत् क्रमात् ॥
 एवं क्रमात् त्रयोदशसूत्रार्थस्तं प्रदायतः । यथाशास्त्रं समालोच्य संग्रहेण निरूपितः ॥

Atma reflected in Satwa, and existing in Avyakta is referred to in the fourth word. This is the meaning of the words of the aphorism.

THE GENERAL SENSE OF THE APHORISM.

The three gunas which are in the form of Satwa, Raja and Tama are said to be the three natural upadhis to Paramatma reflected therein. Paramatma reflected in Satwa Upadhi is known as Rudra reflected in Raja it is styled Brahma and in Tama, Vishnu. These three by virtue of their being reflected in the three gunas are reckoned as Gunamurtis. In the second kanchuka). covering of Rudra (reflected in Satwa), a rapid revolution was produced by the presence of Satwa and the image of Atma. Thereupon the two kinds of darkness viz., Raja and Tama attracted by the above rapid revolution, got merged in the darkness of the second covering of Rudra. By the merging of these two kinds of darkness Raja and Tama (upadhis) the images reflected therein also got naturally merged together in the image reflected in Satwa.

This is the general sense of the thirteenth aphorism.

। सूत्रम् १४ ॥

॥ तेजोधिकोऽतः ॥

॥ बोधानन्दवृत्तिः ॥

प्रतिबिम्बद्वयलयः पूर्वसूत्रेनिरूपितः । अस्मिन्तेजोधिकस्सत्त्वप्रतिबिम्बस्यकीर्त्यते ॥
सूत्रपदद्वयंप्रोक्ततेजोधिकप्रबोधकम् । तत्रादिमपदात्तेजसोधिकत्वंप्रदर्शितम् ॥
द्वितीयपदतस्तस्यकारणसन्निरूपितम् । पदार्थमेवंकथितंसामान्यार्योऽधुनोच्यते ॥

॥ सामान्यार्थः ॥

प्रतिबिम्बद्वयलयात्सत्त्वस्यप्रतिबिम्बके । यतोभूद्विनाभावादृतस्तस्मिन्स्वभावतः ॥
अभूत्तेजोधिकःपूर्वतेजसोऽप्यधिकंपुनः । एवमुक्तंचतुर्दशसूत्रार्थस्संप्रदायतः ॥

THE FOURTEENTH APHORISM.

By that reason the splendour was increased. This is the aphorism.

THE COMMENTARY.

In the thirteenth aphorism it is stated that both the images of Atma affected by the two upadhis viz., Raja and Tama, dissolved in the image reflected in Satwa. That, by this reason, the image reflected in Satwa got its splendour enhanced will be explained in this fourteenth aphorism.

In this aphorism there are two words dealing with the process of this increase of splendour. By the first word the increase of splendour is mentioned and by the second word the cause for that increase is expressed. This is the meaning of the words of the aphorism.

THE GENERAL SENSE.

On account of the dissolution of the images of Atma reflected in Raja and Tama in that reflected in Satwa, the latter got its splendour naturally enhanced beyond what it was originally. This is the general sense of the aphorism.

॥ सूत्रम् १५ ॥

॥ तस्मात् भ्रमणमव्यक्तचितश्चत्वारिंशं न्यायेन ॥

प्रतिबिंबचितःतुर्वसूत्रेतेजोधिकस्मृतः । भ्रमणत्वंतर्थास्मिन्सूत्रेतस्यप्रचक्षते ॥
 भ्रमप्रबोधकपदान्यस्मिन्सूत्रेयथाक्रमम् । चत्वारिनिर्णितानिस्पुःपदच्छेदनतःक्रमात् ॥
 तत्रादिमपदात्कारणत्वंसम्यक्प्रदर्शितम् । द्वितीयपदतस्तद्भ्रमणत्वंनिरूपितम् ॥
 तथाव्यक्तचित्स्वरूपंतृतीयपदतस्मृतम् । चत्वारिंशन्न्यायविधिश्चतुर्थपदतस्मृतम् ॥
 पदार्थमेवमुक्त्वाथसंग्रहेणयथाक्रमम् । सामान्यार्थोस्यसूत्रस्ययथाशास्त्रंनिरूप्यते ॥

॥ सामान्यार्थः ॥

अव्यक्तचित्स्वरूपस्यप्रकाशाधिक्यकारणात् । चत्वारिंशत्स्वतस्सिद्धन्यायसूत्रानुसारतः ॥

THE FIFTEENTH APHORISM.

By that reason Atma in Avyakta got Consequently the state of revolution, according to the fortieth axiom. This is the aphorism.

THE COMMENTARY.

The previous aphorism mentioned that the image reflected in Satwa got its radiance enhanced. This aphorism explains that by that reason, the image in Avyakta got the state of revolution.

This aphorism is split up into four words which deal with this revolution. The cause for the revolution of the light of Chit has been mentioned by the first word, the revolution of Chit, by the second word, the state of Avyakta of Atma by the third word and the fortieth axiom by the fourth word. This is the meaning of the words taken severally.

THE GENERAL SENSE.

On account of the increase of radiance of Chit in Avyakta,

अमणत्वमभूत्सम्यक्स्वभावादेवकेवलम् । एवमुक्तं पञ्चदशसूत्रार्थसंप्रदायतः ॥
 भ्रएवंसामान्यार्थमुक्त्वासंग्रहेणयथामति । इदानींतद्विशेषार्थः किंचिदत्रनिरूप्यते ॥

॥ विशेषार्थः ॥

यच्चत्वारिंशतिन्यायइतिसूत्रेनिरूपितः । तदत्रविशदीकृत्ययथाशास्त्रंनिरूप्यते ॥

॥ स्वतस्सिद्धन्यायसूत्रम् २४ ॥

॥ शक्तिद्वयसंयोगेपूर्वस्यांभ्रमणंसहजम् ॥

॥ विश्वंभरवृत्तिः ॥

सजातीयविजातीयप्रभेदेनयथाक्रमम् । द्विविधाश्शक्तयस्सर्वाइतिप्राहुर्मनीषिणः ॥
 सजातीयास्तासुभिन्नजातीयावापरस्परम् । यदिस्युर्भिक्रितास्सम्यक्तत्तज्जातीयशक्तिषु ॥
 परशक्त्यापूर्वशक्तिःक्षुभिताभवतिक्रमात् । पूर्वस्यांभ्रमणंतेनमहजंस्यादितीरितम् ॥

॥ इत्यादि ॥

revolution resulted in it according to the fortieth axiom. This is the general sense of the aphorism.

THE DETAILED EXPLANATION.

That which is mentioned as the fortieth axiom in this aphorism will be stated here, as the detailed explanation of this aphorism.

THE FORTIETH AXIOM.

When two forces (Shaktis) combine together it is natural that revolution takes place in the first of them. This is the axiom.

VISWAMBHARA'S COMMENTARY:—

The learned declare that all the forces in this universe, are of two kinds viz., like and unlike (positive and negative). When two like or unlike forces join together agitation is caused in the first by the second. This agitation naturally causes the first force to revolve. This natural phenomenon is set down in this fortieth axiom as a self-evident truth. This is the detailed explanation of the fifteenth aphorism.

॥ सूत्रम् १६ ॥

॥ प्रतिबिम्बमणत्वे सत्यप्यधिकप्रकाशकत्वमसिद्धं बिम्बप्रतिबिम्बयोरेकत्वात्सप्ताशीतिन्योयेन ॥

बोधानन्द वृत्तिः ॥

बिम्बप्रतिबिम्बभेदात्परमात्माद्वयस्त्वयम् । उपाधिनिरुपाधिभ्यां द्वैविध्यमभजत्कमान् ॥१॥
 उपाधिर्नामात्ममायाशक्तिरित्यभिधीयते । निरुपाधिर्नामायाशक्त्यभावइतीर्यते ॥२॥
 मायाविष्ठावभूतात्मा मायाशक्तिविवर्जितः । बिम्बइत्युच्यते वेदशास्त्रेषु ज्ञानवित्तमैः ॥२॥
 यदा स एव स्वशक्त्या बिम्बरूपो निरंजनः । बिम्बलक्षणहीनोऽपि बिम्बवत्स्वयमेव हि ॥४॥
 प्रकृत्या प्रतिफलतिसमुद्रेचन्द्रमा इव । तदा तत्प्रतिफलितबिम्बस्यैव स्वभावतः ॥५॥
 शास्त्रेषु ज्ञानमिदं सम्यक् प्रतिबिम्बइतीर्यते । उपाधिनिरुपाधिभ्यामेकस्यैव परात्मनः ॥६॥
 आत्मसान्निध्यमात्रेण तन्माया भ्रान्तिमात्रतः । बिम्बत्वं प्रतिबिम्बत्वं चेति द्वेधा स्वशक्तितः ॥७॥

THE SIXTEENTH APHORISM.

According to the 87th axiom the splendour of Pratibimba or the reflected image (of Atma) does not increase when it revolves, since the Bimba and Pratibimba are identical. This is the aphorism.

BODHANANDA'S COMMENTARY:—

The absolute and changeless Paramatma who is in the form of splendour, got of His own accord, the two states viz., Bimba and Pratibimba, the former on account of His not joining with Upadhi i. e., Mayashakti emanated in Atma, and the latter by joining with it. That form of Atma which is the support of Mayashakti but which is not affected by it, is described in shastras by the learned as Bimba. This Bimba form of Atma is only apparent, inasmuch as it is not possessed of all the characteristics of a Bimba. This Bimba on account of the presence of the power of Atma, reflects in Maya, just as the moon in the ocean. The image of Bimba thus reflected

स्वस्मिन्नेवस्वभावेनकल्पयामाससत्वरम् । आत्मवत्प्रतिबिम्बत्वंबिम्बत्वंचतथैवहि ॥८॥
 तत्प्रकाशस्यापिभवेदितित्तन्नसंभवेत् । प्रकाशस्वस्वरूपत्वादात्मनःपरमार्थतः ॥९॥
 तमात्मानंविनातस्यपृथग्रूपंयतो नहि । ततस्वप्रतिबिम्बत्वंतस्यचित्प्रतिबिम्बवत् ॥१०॥
 उपाधिनासंवृतोपिपृथगाप्तुंनशक्यते । अतएवध्रामणत्वसंसिद्धेसत्यपिक्रमात् ॥११॥
 प्रतिबिम्बेप्रकाशाधिकत्वंनस्वात्स्वभावतः । नन्वात्मापरमानन्दस्वरूपइनिभूरिशः ॥१२॥
 प्रवदन्तिस्ववाक्यैश्चश्रुतयःपरमार्थतः । तस्मात्प्रकाशरूपमितिवक्तुकथंभवेत् ॥१३॥
 आनन्दोवाप्रकाशोवानिर्विकारेपरमात्मनि । कथंभवेत्स्वस्वरूपमौपचारिकमेवतत् ॥१४॥
 मधुरस्ययथारूपंलोकेमधुरितीर्यते । तथैवचात्मनोरूपंप्रकाशइतिसाश्रुतिः ॥१५॥
 अनुग्रहार्थंब्रह्माभ्यासपराणामुवाचहि । स्वतस्वरूपाभावत्वात्प्रकाशप्रतिबिम्बयोः ॥१६॥

in Maya is said to be Pratibimba or the reflected image. Thus by the mere presence of Atma, the Mayashakti by means of its illusive nature, causes the absolute Atma who is in the form of splendour, appears in it in the two forms, Binba and Pratibimba (by the absence and the presence of Maya respectively) as real though delusive. In other words, the Mayashakti by its illusive nature, causes expansion of or increase in the form of Atma.

An objection may here be raised as follows:—It is said above that Atma is of the form of splendour. But vedic passages proclaim that He is of the form of supreme bliss. It is therefore improper to say that the form of Atma is splendour.

Well, the objection is quite right. For, how can the formless Atma have any form at all? Still it is usual in this world to say that a concrete body of the abstract quality of sweetness is honey. It is said so because the nature of sweetness cannot be realised in the absence of a concrete body, say for example honey. Similarly, the perceptible forms of splendour or bliss are only demonstrative of the Impersonal and Imperceptible Atma. This is only a contrivance made for the benefit of the seekers after Brahma, so that they may be provided with a definite form to meditate upon and realise the Imperceptible though the Perceptible. Thus the statement "Atma is of the form of splendour" is accepted only hypothetically (Aupacharika).

तावुभावात्ममात्रेणवर्तेतेपरमात्मनि । एकत्वादात्ममात्रेणचिद्विचप्रतिविंबयोः ॥१७॥
 तथैवतत्प्रकाशस्याप्येकत्वाच्चस्वरूपतः । प्रतिविंबेप्रकाशाधिकत्वंनैवभवेत्स्वतः ॥१८॥
 अविनाभावरूपत्वात्प्रकाशपरमात्मनोः । आत्मवत्प्रतिविंबत्वंप्रकाशस्योप्युपाधिना ॥१९॥
 संभवत्येवतस्मात्तत्प्रतिविंबेस्वभावतः । भवितव्यमेवप्रकाशाधिकत्वमपिक्रमात् ॥२०॥
 तस्मत्प्रकाशाधिकत्वंप्रतिविंबेनिरूपितम् । यत्प्रकाशाधिकत्वमसिद्धमित्यभिर्वर्णितम् ॥२१॥
 तदसिद्धमेवभवत्युपाधिग्रहणात्स्वतः । इतिचेन्न्यायसूत्रस्यविरोधाभवतिक्रमात् ॥२२॥
 अतएवप्रकाशाधिकत्वासिद्धत्वमेवहि । एतत्सूत्रेणविधिवत्सिद्धान्तत्वेनवर्णितम् ॥२३॥
 एवमुक्तवासमासेनसामान्यार्योयथाक्रमम् । विशेषार्थोऽसूत्रस्ययथामतिनिरूप्यते ॥२४॥

॥ विशेषार्थः ॥

सप्तताशीतिन्यायमिति सूत्रेयत्प्रतिपादितम् । तद्विविच्ययथाशास्त्रसंग्रहात्संप्रचक्षते ॥२५॥

It may here be contended again that if splendour is accepted to be the form of Atma, though hypothetically, it then becomes necessary that the splendour of Atma by the action of upadhi, should also get Binba and Pratibimba or expansion of form, even as Atma Himself. If so increase of splendour should result in the Pratibimba of Atma.

This contention is answered thus: Well, splendour is the natural form of Atma. That is to say Atma and splendour are identical and so the latter has no independent existence apart from Atma. So, though the splendour is affected by upadhi, it cannot have a Pratibimba, just as Atma. Since Binba and Pratibimba of Atma are produced only in presence of Atma and since they can have no existence independent of Atma, they become identical with Atma. Thus the Binba and Pratibimba are as much of Atma, as of splendour. It cannot therefore have independent Binba and Pratibimba. Thus the splendour can never have increase of form, though affected by upadhi.

Again the fact that increase of splendour results in Prati-
 binba is contradictory to the 87th axiom. In this aphorism,
 therefore it is established that increase of splendour does not
 result in the Pratibimba. This is the general sense of the aphorism.

॥ स्वतस्मिद्धन्यायसूत्रम् ८७ ॥

॥ स्वप्रकाशात्स्वस्यप्रतिबिंबत्वसंभवत्वेपि-
तस्यप्रकाशाधिक्यसंभवोनस्या तसूर्यप्रतिबि-
बवत् ॥

॥ विश्वंभर वृत्तिः ॥

स्वयंप्रकाशमानत्वंसूर्यस्यसहजंस्मृतम् । तस्मात्तस्यस्वप्रकाशादेवसम्यग्जलादिषु ॥२५॥

आत्मवत्प्रतिबिंबत्वंस्वभावाद्भवतिक्रमात् । तस्मात्सूर्यस्यरूपाधिकत्वंस्वप्रतिबिंबतः ॥२६॥

स्वसन्निधानमात्रेणस्वोपाधौकल्पितंभवेत् । उपाधिमात्रमेवात्रकारणंनस्वभावतः ॥२७॥

THE DETAILED EXPLANATION.

For this purpose we shall quote the 7th axiom referred to in the aphorism and explain it systematically but succinctly.

The 87th Axiom.

Though a luminous body gets a Pratibimba on account of its radiance, it cannot get increase of splendour just as the reflected image of the sun does not.

VISWAMBHARA'S COMMENTARY:—

The sun is naturally a self-luminous body. His likeness is therefore reflected naturally on account of his radiance, in such upadhis as glass or water. Thus the increase of form of the sun is caused on account of his image being reflected in upadhi by his mere presence. Well now, the increase of the form of the image of Atma is due to upadhi and so it is only apparent, but not the real state of Atma.

It may be contended here that increase of splendour must result in the sun just as the increase of his form, that is, the multiplicity of his image in upadhis. But this is not possible. For, the reflected image has no independent form and existence,

स्वस्वरूपाधिकत्वंस्वप्रतिबिंबाद्यथाभवेत् । तथैवस्वप्रकाशाधिकत्वंस्यादितिचेन्नतत् ॥२८॥
 यतस्वरूपाभावत्वंकल्पितत्वमुपाधिना । उक्तंस्यात्प्रतिबिंबस्यतस्मिन्मिथ्यात्मकेततः ॥२९॥
 रूपवत्स्वप्रकाशाधिकत्वंनस्यात्स्वभावतः । इतिसप्ताशीतितमन्यायसूत्रविनिर्णयः ॥३०॥
 एवंषोडशसूत्रार्थसंग्रहेणनिरूपितः ॥

॥सूत्रम् १७॥

॥ तदधिकत्वमुपाधिभेदाद्रंजिकादित्यवत् ॥

॥ बो. वृ ॥

पूर्वसूत्रेप्रकाशाधिक्यमसिद्धमितीरितम् । अस्मिन्प्रकाशाधिकत्वकारणंसन्निरूप्यते ॥१६॥
 प्रतिबिंबेप्रकाशाधिकत्वकारणनिर्णये । सूत्रेपदानिचत्वारिनिर्णितानियथाक्रमम् ॥१७॥
 तत्रादिमपदात्सम्यक्प्रकाशःपरिकीर्तितः । द्वितीयपदतस्तस्याधिकत्वंसंप्रदर्शितम् ॥१८॥
 तृतीयपदोपाधिकारणसूचितंतथा । चतुर्थपदतस्तस्यदृष्टान्तस्सन्निर्दिशतः ॥१९॥

they being manifest only on account of upadhi. Similarly Paramatma gets by His splendour, multiplicity of His form on account of the Maya upadhi. But at the same time no increase of splendour is possible in the reflected image of Atma, as illustrated in the case of the reflected image of the sun. This is what the 87th axiom establishes.

Thus ends the commentary on the 16th aphorism.

APHORISM 17.

The image of Atma gets its splendour enhanced just as the image of the sun reflected in Ranjika glass. This is the 17th aphorism.

THE COMMENTARY.

It has been established by the previous aphorism that increase of splendour cannot take place in the reflected image of Atma. This aphorism, however, disproves that statement and establishes that the said increase does result. This aphorism is composed of four words. The first of these words names the splendour. The second, mentions the increase of it. The third word points out the Upadhi, which gives rise to the

पदानामेवमुक्तार्थत्संप्रदायानुसारतः । सामान्यार्थोऽयसूत्रस्यप्रहातसंप्रवक्षते ॥२०॥

॥ सामान्यार्थः ॥

पूर्वसूत्रेप्रकाशस्यात्मस्वरूपत्वकारणात् । आत्मनःप्रतिबिम्बेप्रकाशाधिक्यंनिप्रेक्षितम् ॥१॥

तन्निराकृत्यसूत्रेस्मिन्प्रतिबिम्बेपरात्मनः । उक्तप्रकाशाधिकत्वमेवदृढयतिक्रमात् ॥२॥

आदित्यप्रतिबिम्बस्यथारंजिकदर्पणे । स्वप्रकाशाधिकत्वंस्यात्तयैवोपाधिभेदतः ॥३॥

उक्तप्रकाशाधिकत्वंप्रतिबिम्बेपरात्मनः । भवत्येवस्वभावेनपूर्वोक्तात्मैक्यकारणात् ॥४॥

॥ तदुक्तंसादामिनी कलायाम् ॥

सजातीयप्रकाशाव्वासितद्वयवस्तुनोः । प्रकाशाधिक्यं कस्मिन्नेत्यप्रकाशता ॥५॥

स्थित्वान्योन्यामिमुग्वत्वंभवेद्यदातयोःक्रमात् । तदाबृहत्प्रकाशोऽल्पप्रकाशमपकर्षति ॥६॥

increase of splendour. The fourth word offers an illustration to prove the above fact. This is the meaning of the words taken severally.

THE GENERAL SENSE.

The previous aphorism has established that on account of the identity of Atma with splendour, increase of splendour in the reflected image of Atma does not result. Referring to the condition of the image of the sun reflected in a particular kind of glass or lens known as Ranjika where the increase of splendour does result, this aphorism tries to falsify the conclusion of the previous aphorism and to prove likewise that the image of Atma does get increased splendour. .

Having thus proved the increase of splendour in the image of Atma, the author quotes some other authorities in support of his theory.

Maharshi Matanga in his Saudamini Kala observes as follows:—When two objects possessing the same kind of light—one major or having a greater quantity of light and the other minor or having a lesser quantity of it—are brought face to face, the light of the major object attracts that of the minor one. The minor object, however, without allowing its lustre to be

अल्पप्रकाशाधिष्ठानस्तुत्वंस्मिन्ततःक्रमात् । स्वप्रकाशसमाकृत्यधारयत्यचलंयथा ॥७॥
 स्वयत्संकोचहेतुत्वादल्पप्रकाशस्तुनि । व्याप्तुंसंपूर्णतोऽस्याद्बृहत्प्रकाशस्तुनः ॥८॥
 अतःपराङ्मुखोभूत्वास्वस्थानं प्रतिवेगतः । तिर्यग्गच्छत्यूर्ध्वमुखं तत्प्रकाशोऽस्वभावतः ॥९॥
 पश्चादल्पप्रकाशस्तत्प्रकाशस्त्रीशक्तिः । सजातीयस्वभावत्वात्समाकर्षतिवेगतः ॥१०॥
 तथापि तस्मादहर्तुनशशाकस्यशक्तिः । तस्मात्तत्प्रतिबिम्बस्वतेजसा तत्स्वरूपवत् ॥११॥
 समादायातिवेगेन स्वस्थाने सन्नियोजयेत् । प्रकाशद्वयमध्ये तत्प्रतिबिम्बस्तत्स्वयम् ॥१२॥
 वर्तते स्वस्वरूपेण बृहत्प्रकाशविचवत् । पश्चात्स्वकिरणैस्तत्प्रकाशौ द्वावपि चक्रमात् ॥१३॥
 व्याप्य तस्यान्तर्बहिश्च प्रकाशयति तेजसा । तेन तत्प्रतिबिम्बे पूर्वप्रकाशादपि क्रमात् ॥१४॥
 भवेत्प्रकाशाधिकत्वं बृहत्प्रकाशविचवत् ॥

॥ इत्यादि ॥

thus attracted, retains it within itself and keeps it at rest. The light of the major object then will not have space enough in the minor object to pervade it. It therefore retracts to its abode. The light of the minor object at the same time, being of the same kind, tries to attract the light of the major object which is retracting from it. Thus though the light of the minor object cannot succeed in attracting the light of the major one, yet it receives the exact likeness or photograph of the major object and impresses it on the object from which it (the light) proceeds. The image or the exact likeness of the major object is thus located between the two lights, whereby it is illumined by the light of the rays of the two objects from above and below. By this the image appears as getting a greater degree of light than it had originally.

A similar account is given in *Srushtivilasa* also thus:—

When two lights come face to face, the two objects from which the lights proceed catch the images of each other and the images thus reflected in the two objects appear, on account of the combination of the two lights, to have increased light.

॥ सृष्टिविलासेषि ॥

प्रकाशद्वयसंयोगात्तदधिष्ठानवस्तुनोः । प्रभवेत्प्रतिबिम्बत्वमुभयत्रपरस्परम् ॥२१॥

अतःप्रकाशाधिकत्वंप्रतिबिम्बभवेत्स्वतः ॥२२॥

॥ इत्यादि ॥

॥ ज्योतिर्विलासेष्येवमेवोक्तम् ॥

प्रकाशद्वयसंयोगेतदधिष्ठानवस्तुनोःपरस्परं मुभयत्रप्रतिबिम्बोभवति । प्रकाशोद्विधा ॥
विशेषसामान्यभेदात् । तत्रविशेषप्रकाश विशिष्टादर्पणादयः । विशेषोनाम, दहन, पचन

Jyotirvilasa, another scientific work deals with this point which goes to corroborate the above statement further, thus:—

When two objects having light in them come face to face, the one catches the likeness of the other reciprocally.

After stating this theory the author of this work narrates, up to the end of the third Gucha or chapter of his work, an elaborate discussion which he entered into with an opponent, who contradicted his theory and whom he satisfied by proving the falsity of his objection. It is a long discussion occupying a lot of space and so we shall give here a very brief account of it.

The point of refutation raised by the opponent is this:—

“Well, according to your statement wherever the light of two objects, in opposite directions meets, the objects emitting the light should catch the likeness of each other. Now let the two objects of light be the sun and fire. Suppose fire is made to burn in the sun-light. The light of fire, of course, combines with that of the sun. According to your theory therefore, the fire must catch the likeness of the sun and vice-versa. But it is evident that it is not so. In this way your theory has been proved false.”

Accepting this objection the author tries to refute it and to establish his own theory, thus—

“Well, learned opponent, it passes my understanding whether

न्वलनभानोष्णवेगविशिष्टप्रकाशो विशेषप्रकाशः । सामान्योनाम, एतद्गुणरहितप्रकाश
स्सामान्यः । विशेषोपिद्विधा, सावरणो, निरावरणश्चेति । तत्रसावरणोग्न्यादीनाम् । निरा-
वरणस्त्वात्मसूर्यादीनाम् । अनयोःपरस्परंप्रतिबिम्बत्वंनास्ति । विजातीयप्रकाशत्वात् ।
सजातीयप्रकाशविशिष्टवस्तूनामप्येवमेवप्रतिबिम्बाभावः । समानत्वात् । सामान्योपिद्विधा,
बाह्याभ्यान्तरभेदात् । तत्रबाह्यप्रकाशोदर्पणादीनाम् आभ्यन्तरप्रकाशःपर्वतादीनाम् । उभ-
यत्रविशेषप्रकाशसद्भावेपिपर्वतादिषुदर्पणादीनांप्रतिबिम्बत्वंनास्ति । आकर्षणाशक्त्यभावात् ।

you make bold to launch your objection on my statement, after studying my theory carefully and in full or whether you are blurting out whatever comes uppermost to your lips without reference to the context and merely to satisfy your love of vain discussion. Should it be the latter, it is not worth while arguing with you. Granting that it is the former, I shall try to clear your ignorance and enlighten you on this point. Try to follow me if you can, now at least.

“ In the first place the gist of your objection is only a part of the reasoning of my theory. Note this. Light, by nature, is of two kinds, Visesha or major and Samanya or minor; Paramatma and Surya being examples of the former and glass diamond etc., of the latter. The properties of the former are, burning, boiling, blazing, shining, heating, Vega or speed etc., while that of the latter is mere shining. The major light is again of two kinds viz., Savarana and Niravarana, fire and lamp lights being the examples of the former, and Paramatma and the sun, of the latter. When an object possessing light of the first kind is placed face to face with that of the second, as in the case of the sun and fire, neither of them catches the likeness of the other on account of the dissimilarity of the light in them. Similarly no two objects possessing similar light can catch each other's likeness.

“The Samanya Prakasa or ordinary light is again of two kinds viz., Bahya prakasa or external light and Abhyantara Prakasa or internal light, glass and similar objects, belonging to the first set and mountains and the like, to the second. Objects

पर्वतादीनां दर्पणादिषु प्रतिबिम्बोभवति । आकर्षणाशक्तिसद्भावात् । एवमेवविशेषप्रकाश
विशिष्टवस्तूनां सामान्यप्रकाश विशिष्टवस्तुषु प्रतिबिम्बोभवति । प्रकाशस्य न्यूनाधिकप्रमेदात्
तद्यथेति चेत् । प्रकृत्यामात्मवत् ॥

इत्यादिशास्त्रप्रमाणैः प्रतिबिम्बात्मनिक्रमात् । प्रकाशाधिकसंसिद्धिर्भवेद्यत्सात्स्वभावतः ॥
तस्मात्प्रकाशाधिकत्वमसिद्धमित्यत्स्मृतसू । तत्प्रमाणानुभूत्योर्विरुद्धत्वात्सन्निराकृतम् ॥

of internal light since they have no power (shining surface) to catch the images of objects, cannot do so. The objects of external light on the other hand can catch the likeness of objects since they have power to catch the images of objects, of course, in the presence of a major light.

“Again objects of minor light can catch the likeness of objects of major light on account of the difference in the degree of light in them. The most popular illustrations of this fact are (1) Prakriti catching the likeness of Paramatma and (2) Ranjika glass, of the sun.

“By this it is clear what kind of lights catch the likeness of objects and what kind do not. Again it is clearly explained that the sun and fire are regarded as bodies of major light and that objects of similar light cannot catch each other's images. Thus, o ! erudite opponent, your objection only betrays your ignorance of my theory. In conclusion it has been established that production of the image or the likeness of an object is caused by the combination of two kinds of light as noted above, of course, only in the presence of a major light. Further it has also been proved that the reflected image of Atma does get increased splendour. So the objection raised in contradiction to this fact has been refuted. Thus it has been proved not only on the authority of shastras but also of practical observation that the reflected image of Atma gets increased splendour.”

The composition and the process of preparation of Ranjika glass has been described in Darpana Prakarana, thus.

॥ रंजिकदर्पणमुक्तं दर्पणप्रकरणे ॥

स्फाटिकपारदसैकतसज्जीकारोधुडिकशल्यविरंचिः । कंदरकबुर्मासिकवज्रोभौक्तिक-
दन्त सुरंजिकनागः । चांद्रिकसौरिकभामुखरौद्रोगारुडगैरिकफेनगुहारिः ॥ उडुषोडशद्वात्रि-
शत्पंचद्वाविंशतिमुनिवसुरुद्रोग्निः । ऋतुवर्णाकर्षादंशवेदास्सप्तदशानल ऋतुपंचदश ।
एवंग्रहगुणसायकपंचविभागांशानाहृत्यविधानात् । सम्यक्संशोध्यततस्तुलयांस्तोल्यासंप्रदा-

The following table gives the names and the component parts of the ingredients required for preparing glass known as Ranjika.

Names of substances.	Component parts.
1. Sphatica	27 Parts
2. Parada (mercury)	16 „
3. Saika'a (sand)	32 „
4. Sajjeekara	5 „
5. Dhundica	22 „
6. Salya (bones of Vertebrate creatures)	7 „
7. Viranchi	8 „
8. Kandara	11 „
9. Karbura	3 „
10. Makshica	6 „
11. Vajra (diamond)	5 „
12. Mauktica (pearls)	12 „
13. Danta (ivory)	18 „
14. Suranjaka	4 „
15. Naga	17 „
16. Chandrica (silver)	3 „
17. Saurica	6 „
18. Bhamukha	5 „
19. Raudra	10 „
20. Garuda	9 „
21. Gairica	3 „
22. Phena	5 „
23. Guhari	5 „

येना । संपूर्यगारुडास्यमुखमूषामध्येयथोक्तविधिनाच । कूर्मव्यासटिकायांमध्येनिक्षिप्येगाल-
पाषाणमृत्पिण्डैः । संगाल्यवेगतोर्द्धिमुखीभस्त्रात्त्रिशतकक्ष्योष्णमानेन । आदर्शकयंत्रगर्भमुख
बिलमध्येसंपूरयेच्छिन्नैर्दशनैः पश्चात् । एवंकृतेतिशुद्धोन्मिलरूपोमहाप्रकाशयुतः ।
पंचसहस्रज्योतिसमानद्युतियुतोभवतिरंजिकादर्शः ॥

॥ इत्यादि ॥

॥ सूत्रम् १८ ॥

॥ तस्मात्तद्दिगुणतमसोपकर्षणंपूर्ववत् ॥
व

॥ बो. वृ. ॥

भानाधिक्यंपूर्वसूत्रात्प्रतिबिंबेदृढीकृतम् । तस्मादस्मिन्तत्प्रकाशाद्दिगुणाधिकतःक्रमात् ॥

Procure these substances, purify them duly and weigh them in their adequate parts as detailed above. Fill them in a crucible called Garuda and place it in a furnace known as Koorma Vyasatica. Cover it up with coal, pieces of certain kinds of stone and mud to produce a high degree of heat. Blow it with bellows known as Dwimukhee Bhastrica till the heat rises to 300 Kakshyas, when the ingredients melt and become a liquid. Pour it slowly on the surface of an apparatus used in manufacturing glass. When cooled you will get glass which can magnify light (falling on it) to the power of 1000 Jyotis. *

Thus ends the commentary on the 17th aphorism.

APHORISM 18.

The radiance, as in the previous case, attracted twice as much as the original quantity of darkness. This is the aphorism.

THE COMMENTARY.

The previous aphorism has established the increase of splendour in the reflected image of Atma. This aphorism aims at explaining authoritatively that extra darkness amounting to twice

* Note :— One Jyoti is capable of illuminating an area of 64 Prankanas.

ध्वांतापकर्षणं सम्यग्यथाशास्त्रं प्रकीर्त्यते । तमोपकर्षणप्रबोधकानित्रीण्यथाक्रमम् ॥२॥

पदानि निर्णितान्यस्मिन्संप्रदायानुसारतः । उक्तप्रकाशाधिकत्वं तत्रादिमपदात्स्मृतम् ॥३॥

द्वितीयपदतस्तध्वांतापकर्षणमीरितम् । तृतीयपदतः पूर्वदृष्टान्तस्सन्निदर्शितः ॥४॥

पदार्थमेवमुक्त्वास्यसामान्यार्थो धुनोच्यते ॥

॥ सामान्यार्थः ॥

प्रतिबिम्बप्रकाशाधिकत्वहेतोस्त्वभावतः । तत्प्रकाशाद्बिगुणिततमसस्तेन कर्षणम् ॥

क्रमान्नवमसूत्रोक्तन्यायमानानुसारतः । अभूत्पश्चात्तत्प्रकाशमावृणोत्तत्तमः क्रमात् ॥

स्वतस्सिद्धन्यायमानं नवमेसंप्रदर्शितम् । एवमष्टादशसूत्रस्यार्थस्सम्यङ्गिनरूपितः ॥

विशेषार्थोऽस्य सूत्रस्य मनागपि निविद्यते ॥

the original quantity was attracted by the said increased splendour.

This aphorism is made up of three words dealing with the attraction of darkness. The first of these words refers to the increased splendour spoken of in the preceding aphorism. The second word states the process of attraction of the darkness. The third word points out the example given in the 9th aphorism.

This is the word meaning of the aphorism.

THE GENERAL SENSE.

As a natural consequence of the increase of splendour in the reflected image of Atma, the splendour attracted twice the quantity of the original darkness, in accordance with the axiom quoted in connection with the 9th aphorism. This darkness thereupon covered the splendour itself gradually. The axiom referred to has been quoted and explained in connection with the 9th aphorism. This is the general sense of the 18th aphorism which needs no detailed explanation.

॥ सूत्रम् १९ ॥

॥ अतःपूर्वस्मादप्यष्टांशाधिकत्वंत्रयोदश न्यायेन ॥

॥ बो. वृ ॥

ध्वांतापकर्षणं प्रोक्तं प्रकाशाधिक्यतः पुरा । अथेदानीं तत्प्रमाणमस्मिन्सूत्रे निरूप्यते ॥१॥
 प्रमाणबोधकपदान्यस्मिन्पंचयथाक्रमम् । पदच्छेदेन तस्सम्यङ्निर्णिता नियथाविधि ॥२॥
 तत्रादिमपदात्तत्कारणसम्यक्प्रदर्शितम् । द्वितीयपदतः पूर्वोक्ताव्यक्तध्वांतमीरितम् ॥३॥
 तृतीयपदतस्संबंधकाव्ययमुदाहृतम् । चतुर्थपदतो ध्वांताधिक्यमानं प्रदर्शितम् ॥४॥
 तथैव पंचमपदात्त्वतस्सिद्धो निरूपितः । पदार्थमेव मुक्त्वा स्य सामान्यार्थो ध्रुनोच्यते ॥५॥

APHORISM 19.

By this eight times more than the original darkness resulted in the Avyakta enclosure in consonance with the 13th axiom. This is the aphorism.

THE COMMENTARY.

The fact that darkness was attracted into the Avyakta enclosure on account of the increased splendour, has been explained in the previous aphorism. The amount of the darkness thus attracted (a second time) will be defined in this aphorism.

In this aphorism there are five words which deal with the increased quantity of the darkness. The first word states the cause for the increase of darkness ; the second word refers to the darkness of Avyakta already stated ; the third word is a connective ; the fourth word gives the measurement of the increased quantity of the darkness ; the fifth word alludes to the thirteenth axiom. This is the meaning of the words in the aphorism.

॥ सामान्यार्थः ॥

परस्पराकर्षणेन ध्वांतयोरुभयोः क्रमात् । यतस्सम्मेळनमभूदतः पश्चात्स्वभावतः ॥
यावत्प्रमाणमव्यक्तावरणेन स्थितं पुरा । तस्मादप्यष्टभागांशाधिकं तमस्स्वभावतः ॥
त्रयोदशस्वतस्सिद्धन्यायमानानुसारतः । क्रमादभूत्पुनस्तस्मिन् ध्वांताधिकमतस्स्मृतम् ॥
एवं सामान्यार्थमुक्त्वा सूत्रस्यास्य यथाक्रमम् । त्रयोदशस्वतस्सिद्धन्यायमद्यविविच्यते ॥
॥ स्वतस्सिद्धन्यायसूत्रम् १३ ॥

॥ विभाजितनिरंशवस्तुनोः परस्परापकर्षणं सहजम् ॥

॥ विश्वंभरवृत्तिः ॥

निरंशस्वांशप्रभेदाद्वस्तुलोके द्विधा स्मृतम् । अंशोनामंगइत्याहुश्शास्त्रेषु ज्ञानवित्तमाः ॥

THE GENERAL SENSE.

The darkness of Avyakta and of Moola prakriti got intermingled on account of their mutual attraction. As a natural consequence of this the darkness of Avyakta increased in quantity to eight times the original size, in consonance with the thirteenth axiom. This aphorism has thus calculated the exact measurement of the extra or additional quantity of the darkness. This is the purport of the aphorism.

THE DETAILED EXPLANATION OF

THE THIRTEENTH AXIOM.

It is natural that the two portions into which a Niramsa thing is divided attract each other.

VISWAMBHARA'S COMMENTARY.

Things under creation are of two kinds viz., Niramsa and Samsa. The learned proclaim in shastras that Amsa means Anga or a limb. So things with limbs such as human beings, animals, birds, trees etc., belong to the Samsa type; while things without limbs such as darkness, light, akasa etc., belong to the Niramsa type. Of these, things of the former kind i.e., things

वस्तूनितद्विशिष्टानिसांशानीतिविदुर्बुधाः । वस्तूनितद्विहीनानिनिर्शानीतिचक्रमात् ॥
 नृपक्ष्यगमृगाद्यास्तुतयोस्सांशाइतीरिताः । ध्वांतप्रकाशाकाशाद्यानिर्शाइतिकीर्तिताः ॥
 सांगोपांगविशिष्टस्वरूपाणांसांशवस्तुनाम् । व्यापकत्वंखप्रदेशमन्तरानहिविद्यते ॥
 सांगोपांगविहीनानांध्वांताकाशादिवस्तुनाम् । स्वस्वरूपविनाव्यापकत्वंसर्वत्रविद्यते ॥
 उपाधिनिरूपाधिभ्यांसांगानामंगसंचयः । विभाजितोपिचतयोःपरस्परापकर्षणम् ॥
 अव्यापकस्वरूपत्वान्नास्तिकिचिदपिस्वतः । ध्वांतप्रकाशाकाशाश्चोपाधिनाभेदिताअपि ॥

with limbs can only pervade within the space they occupy exclusively. Contrarily things of the latter class i.e., things having no limbs are capable of pervading on all sides but not within their own form. Thus when the limbs of a certain Sanga thing are separated by an Upadhi, the disconnected members of the thing are utterly powerless to pervade or attract each other. Contrarily though darkness, light etc., are (or are caused to appear as) divided, yet the divisions thereof have a natural and mutual tendency and inseparable affinity to each other, to unite together. In this way, since darkness belongs to the Niramsa group of things having the property of all-pervasiveness, it does not allow itself to be divided by any upadhi. And even if it be reckoned as divided on account of upadhi, the portions which thus appear as divided are capable of combining together.

Well, an illustration will make this point clearer.

Suppose a glass-box is placed in a dark room. Then the box or upadhi shuts out, a portion of the darkness of the room whereby this appears as divided on account of the said upadhi, the glass box. But in fact the darkness is not at all divided. For if the box is removed from the room darkness is not removed with it but is still present there as before, irrespective of the presence or absence of the box. It is therefore evident that darkness does not allow itself to exist as

निरंशकस्वरूपत्वादविनाभावतः क्रमात् । परस्परापकर्षणं भवेत्तयोस्त्वभावतः ॥
 निरंशत्वाद्यापकत्वाद्विभागत्वमुपाधिना । न संभवेत्किंचिदपितमसस्सर्वथास्वलु ॥
 उपाधिना भेदितवद्भ्रान्त्यादृष्टमपि क्रमात् । स्वस्य व्यापकशक्त्योपाधिस्य ध्वांतापकर्षणम् ॥
 निरंशकत्वात्तमसस्सहजं स्यादितिक्रमात् । त्रयोदशस्वतस्मिद्धन्यायसूत्रविनिर्णयः ॥

॥ सूत्रम् २० ॥

॥ निरंशत्वात्तमप्रकाशयोरन्योन्यव्यापक- त्वावकाशश्च युत्तरत्तन्यायेन ॥

॥ बो. वृ ॥

पूर्वसूत्रेतमो धिक्व्यमव्यक्तावरणे स्मृतम् । व्यापकत्वावकाशत्वं प्रकाशध्वांतयोस्त्वतः ॥१॥

परस्पराकीर्त्यतेस्मिन्सूत्रे सम्यग्यथाक्रमम् । व्यापकत्वावकाशप्रबोधानिपदानितु ॥२॥

divided in spite of the upadhi viz., the glass box or the like. Well even granting that it exists as divided on account of the box, the darkness of the room is capable of attracting and combining with that portion of the darkness which appeared as divided from the darkness of the room, by the presence of the box.

Thus the thirteenth axiom lays it down as a self-evident truth that darkness, inasmuch as it is a Niramsa thing, is capable of attracting and uniting with that portion of the darkness which appears as divided and separated by upadhi, from the aggregate darkness. This is the commentary on the 13th axiom.

APHORISM 20.

Being Niramsa things, there is possibility for Darkness and Light to penetrate into each other naturally and this fact has been clearly proved in the 103rd axiom. This is the aphorism.

चत्वारिनिर्णिता निःस्युस्सूत्रेस्मिन्विधिवत्क्रमात् । तत्रादिमपदात्तस्मिन्निरंशत्वं प्रदर्शितम् ॥३॥
 द्वितीयपदतोऽर्वात् प्रकाशौ सन्निरूपितौ । अन्योन्यव्यापकत्वावकाशः प्रोक्तस्मृतीयतः ॥४॥
 स्वतस्सिद्धन्यायमानं चतुर्थपदतस्मृतम् । पदार्थमेवमुक्त्वाऽस्य सामान्यार्थो निरूप्यते ॥५॥

॥ सामान्यार्थः ॥

निरंशत्वं व्यापकत्वं तमः प्रकाशयोः क्रमात् । स्वभावमिति शास्त्रे स्मिन्पूर्वमेव निरूपितम् ॥६॥
 तस्मात्त्युत्तरशतस्वतस्सिद्धप्रमाणतः । क्रमात्प्रकाशस्तमसि प्रकाशेऽपि तमस्तथा ॥७॥
 सर्वव्यापकशक्तित्वान्निरंशत्वाच्चेकैवलम् । प्राप्तुमन्योन्यावकाशो भवेत्सम्यक्स्वभावतः ॥८॥
 एवमुक्तं तमासेन सामान्यार्थो यथाक्रमम् । विशेषार्थोऽस्य विधिवत्संग्रहेण निरूप्यते ॥९॥

THE COMMENTARY.

Enlarge ment of the dimensions of darkness in the *Avyakta* enclosure has been proved in the previous aphorism. Capability of darkness and light to penetrate into each other and to combine together will be dealt with in this aphorism.

This aphorism consists of four words dealing with the said penetration. The first word says that darkness and light are *Niramsa* things. The second word names the two things darkness and light. The third word mentions the possibility of mutual penetration of darkness and light. The fourth word refers to the 103rd axiom.

Having thus given the meanings of the words of the aphorism we shall pass on to its general sense.

THE GENERAL SENSE.

It has already been stated in the 13th axiom that darkness and light belong to *Niramsa* type and that like things (light with light and darkness with darkness and so on) penetrate into one another and combine together. Now this 103rd axiom establishes that the unlike things, darkness and light, inasmuch as they are of *Niramsa* kind, are also capable of penetrating into each other and combining into one. This is the general sense of the aphorism.

॥ विशेषार्थः ॥

यस्त्रयुत्तरशतन्यायभितिसूत्रेनिरूपितम् । विविच्यतन्त्रायमत्रयथाशास्त्रंनिरूप्यते ॥१०॥

॥ स्वतस्सिद्धन्यायसूत्रम् १०३ ॥

॥ विजातीयस्वरूपत्वेपिनिरंशवस्तुनोरन्यो-
न्यव्यापकत्वंसहजम् ॥

॥ विश्वभरवृत्तिः ॥

सजातीयस्वरूपोवाविजातीयोयथाक्रमात् । योत्राकोवाभवेद्वस्तुतयोस्सम्यक्स्वभावतः ॥११॥

निरंशत्वव्यापकत्वस्वभावोविद्यतेयदि । विजातीयस्वरूपोपितयोरन्योन्यतःक्रमात् ॥१२॥

स्वभावतोव्यापकत्वंभवत्येव न संशयः । इतिस्वतस्सिद्धसूत्रन्ययमानविनिर्णयः ॥१३॥

॥ सूत्रम् २१ ॥

॥ अतएवस्यात्परस्परंव्याप्तिरुभयत्र ॥

THE DETAILED EXPLANATION.

The 103rd axiom mentioned in the aphorism will be explained below:—

Niramsa things, though they are unlike ones, are naturally capable of penetrating into one another. This is the axiom.

THE COMMENTARY.

If two like or unlike things are of Niramsa type having the property of vyapaka or penetration and come in contact with each other, they naturally penetrate into each other and combining together appear as a single whole. There can be no doubt about it.

This is the gist of this axiom. Thus ends the 20th aphorism.

APHORISM 21.

Hence alone results mutual penetration in both (the things)
This is the aphorism.

॥ बो. वृ ॥

पूर्वसूत्रे व्यापकत्वावकाशस्संप्रकीर्तितः । तमप्रकाशयोरस्मिन्नन्योन्यव्याप्तिरुच्यते ॥१॥

एतत्प्रबोधकपदान्यस्मिन्षणिर्णितानिहि । तत्रादिमपदात्तत्कारणसम्यक्प्रदर्शितम् ॥२॥

तथैवावधारणार्थोद्वितीयपदतस्मृतः । पश्चात्तृतीयपदतः क्रियार्थस्सन्निदर्शितः ॥३॥

चतुर्थपदतः प्रोक्तमन्योन्यत्वं तयोः क्रमात् । व्याप्तिस्तु पंचमपदात्तयोस्सम्यक्प्रदर्शितम् ॥४॥

तथैव षष्ठमपदाद् व्यतासि स्थानं निरूपितम् । पदार्थमेव सुक्त्वा स्य सामान्यार्थोऽनुच्यते ॥५॥

॥ सामान्यार्थः ॥

व्यापकत्वावकाशत्वं पूर्वसूत्रेयतस्मृतम् । अतएव तयोस्स्वस्वानभिध्यादेव केवलम् ॥६॥

क्रमात्प्रकाशेतमसः तथैव तमसि द्युतेः । परस्परं व्याप्तिरभूत्स्वभावादेव केवलम् ॥७॥

THE COMMENTARY.

Having established the possibility of mutual penetration of like and unlike things (of Niramsa kind) in the previous aphorism, the manner of their Vyapti or actual penetration resulting in an aggregate of the two, will be dealt with in this aphorism.

This aphorism is composed of six words dealing with the said penetration. The first word expresses the cause for the penetration of light and darkness ; the second word emphasises that that alone is the cause of the effect viz., penetration of the things ; the third word is the verb ; the fourth word denotes that the action is mutual and reciprocal ; the fifth word 'Vyapti' ie., permeation or penetration is the subject of the sentence ; the sixth word names the like and unlike things in the case of which this theory holds good. This is the meaning of the words of the aphorism.

THE PURPORT OF THE APHORISM.

The very fact expounded in the previous aphorism that darkness and light allow themselves to permeate mutually, presupposes that their mere coming into contact with each other results in their mutual permeation and formation an aggregate thereof.

On this assertion one may raise an objection as follows.

Well sir, there is some possibility for mutual penetration and

ननु तेजस्तिमिरयोर्विरुद्धवर्मिणोः क्रमात् । कथं नुष्टते व्याप्तिर्विरुद्धत्वात्परस्परम् ॥८॥
 अतो व्याप्तिरसिद्धा स्यात्तस्माच्छास्त्रं निरर्थकम् । शास्त्रदृष्ट्या व्याप्तिरुक्ता तस्मात्तत्सिद्ध-
 मेव हि ॥९॥

श्रुतिप्रमाणात् सार्थिक्यमेतच्छास्त्रस्य विद्यते । तथा हि वासिः क्वदृष्टं शास्त्रे विरुद्धवर्मिणोः ॥१०॥
 इति चेदुच्यते शास्त्रप्रमाणं मुनिसम्मतम् । शक्तित्रेव्यसि निर्णयाधिकारे विशेषतः ॥११॥
 अगस्त्यमुनिना व्याप्तिरक्षणं सन्निरूपितम् । तत्संगृह्यया शास्त्रं किंचिदत्र निरुच्यते ॥१२॥

combination of like things; but in the case of unlike things such as light and darkness mentioned in your theory, the same effect is impossible. Further your statement is opposed to the 212th axiom, which establishes that no combination of unlike things is possible. So your statement is contradictory both to common sense and scientific truths. Hence your statement and your shastra containing such false theories are both erroneous, useless and harmful.

The author of the above theory answers the objection, thus.

“Well O erudite opponent, your objection is refuted by reply that penetration and combination of things in question is certainly in consonance with scientific shastras; but the pity of it is only your ignorance of shastras and your untrained common sense.

“As to the shastra you are audacious enough to condemn as false, and so on, note that it is based on the Vedic truths and so is beyond any doubts or Cavil. Your objection has thus been proved groundless.”

The opponent again questions the author thus,—

“Well sir, you say that your statement is in accordance with Scientific shastras. If so, can you quote the shastra in support of your statement?”

In answer to this interrogation the expounder of the shastras in question, says “Well, sir, I shall give out briefly the facts

॥ उक्तं हि शक्तित्रे ॥

सृष्ट्यां क्रमात्सजातीयविजातीयप्रभेदतः । द्विविधं हि भवेद्वस्तुतयो निर्देशवस्तुषु ॥१३॥
 क्रमाद्युतिः प्रकाशस्य तमसस्तमएव च । गगनं चांतरिक्षस्य सजातीया इतीरिताः ॥१४॥
 आकाशस्य द्युतिस्तद्वत्प्रकाशस्य तमः क्रमात् । अंधकारस्यांतरिक्षं विजातीया इतीरिताः ॥१५॥
 एतेषां रूपभेदोऽपि गुणभेदो न विद्यते । गुणस्तेषां व्यापकत्वशक्तिरित्यभिधीयते ॥१६॥
 अन्योन्यव्यापकत्वं यत्तयोर्व्याप्तिरितीर्यते । तद्व्याप्तिद्विविधा प्रोक्ता संयोगैक्यप्रभेदतः ॥१७॥
 वस्तुद्वयसमायोगमात्राद्यन्मेळनं भवेत् । तत्संयोगव्याप्तिरिति प्रवदन्ति मनीषिणः ॥१८॥
 रूपतश्शक्तिश्चैव येषां संमेळनं भवेत् । तदैक्यव्याप्तिरित्याहुर्वस्तुनां शास्त्रवित्तमाः ॥१९॥

expressed in a chapter known as Vyapti Nirnayadhikara of Shakti Tantra by Agastya, which please note carefully.

“All matter in creation is of two kinds, Sajateeya or like things and Vijateeya or unlike things. Among Niramsa kind of things light, darkness and akasa have nothing like to them except themselves. In other words light is like to light itself, darkness to darkness itself and so on. Sajateeya Vastu or like things are those which have similar appearance and properties. Again Akasa is unlike to light, light, to darkness and darkness, to light. That is to say they are dissimilar in appearance but similar in properties. The things of one kind differ from those of the other kind only in appearance, but the things of both the kinds have common Guna or properties. By Guna (property) is here meant the power of these things to permeate mutually and combine together. So when two such things combine together forming an aggregate thereof, it is to be understood that the combination is due to the permeating power of these things. Thus the combination of two things results only by the commingling of the permeating power of one thing with that of the other. It is this combination that is known as ‘Vyapti’ in this shastra.

“This Vyapti or penetration is again of two kinds viz., Samyoga Vyapti and Aikya Vyapti. The combination which results when two things of opposite properties meet together is said to

एतद्व्याप्तिर्भवेत्सम्यक्संजातीयेषु वस्तुषु । रूपतो गुणतश्चैव स्वभावत्वाद् विशेषतः ॥२०॥
 तथैव रूपभेदत्वाद्गुणैकत्वाच्च केवलम् । संयोगव्याप्तिस्सर्वत्र विजातीयेषु वस्तुषु ॥२१॥
 भवत्येव स्वभावेन वस्तुसंयोगमात्रतः ॥ इति ॥

तस्माद्विरुद्धधर्मिणोस्तेजस्तिमिरयोः क्रमात् । संयोगव्याप्तिमेवात्र शास्त्रदृष्ट्या निरूपितम् ॥२२॥
 असिद्धो वा अनर्थो वा शास्त्रानुक्तत्वाकारणात् । त्वयोक्तं दूरतोपास्तं व्यप्तिस्स्वभावकी भवेत् ॥२३॥
 एकविंशतिसूत्रार्थमित्यमुक्तं समासतः । विशेषार्थोऽस्य सूत्रस्य वक्तुं नैव हि विद्यते ॥२४॥

be samyoga vyapti. This penetration is so-called because in it the appearance of neither of the things entering into combination is lost, but the appearance of both the things is present and unmolested in the aggregate formed. Again the combination of things of like appearance and properties, which results naturally when they come in contact with each other, is said to be 'Aikya Vyapti'. This combination is so called because in it the things entering into combination have no difference either in their appearance or properties and form a like aggregate as in the case of mixture of two quantities of water together. That is to say 'Aikya Vyapti' results when two things of similar appearance and properties meet together and "Samyoga Vyapti" when two things different in properties but similar in appearance join together.

"Well, my dear opponent, this is what Shakti Tantra expounds in connection with 'Vyapti', or penetration and combination of things. Coming to the point in dispute, though light and darkness are different in appearance, yet their commixture does result in Samyoga Vyapti or mutual penetration and combination, forming a common aggregate thereby.

"In this way, my theory viz., 'When light and darkness come in contact with each other, they permeate into each other mutually and form a common aggregate' has been established scientifically. Your objection therefore falls to the ground. And the shastra expounding this theory is authentic, enlightening and philanthropic."

This is the purport of the 21st aphorism which needs no detailed explanation. "

॥ सूत्रम् २२ ॥

॥ आपोतएव ॥

॥ बो. वृ. ॥

तमप्रकाशयोस्संयोगव्याप्तिः पूर्वसूत्रतः । उक्तमस्मिन्तेनविद्युदापोत्पत्तिर्निरूप्यते ॥१॥

उक्तमापोत्पत्तिप्रबोधकमस्मिन्पदद्वयम् । तत्रादिमपदाद्वैद्युदापोत्पत्तिर्निरूपिता ॥२॥

द्वितीयपदतस्तत्कारणसंन्यङ्गिनरूपितम् । पदार्थमेवमुक्तवास्यसामान्यार्थोऽधुनोच्यते ॥३॥

॥ सामान्यार्थः ॥

अब्रूंपद्विविधंप्रोक्तंविद्युद्भूतप्रभेदतः । तयोरादौविद्युदापोत्पत्तिक्रमोऽनिरूप्यते ॥४॥

तेजस्तिमिरयोस्संयोगव्याप्त्यात्यन्तवेगतः । क्रमात्तद्गुणशक्तयोस्संश्लेषणोभूत्परस्परम् ॥५॥

APHORISM 22.

Hence alone the evolution of water. This is the aphorism.

THE COMMENTARY. .

The Mutual penetration (Samanya vyapti) taking place between darkness and light when they come into contact with each other has been explained in the previous aphorism. In this aphorism how, by that penetration, water in the form of electricity evolved will be explained.

This aphorism is composed of two parts dealing with the process of emanation of this water in the form of electricity. The evolution of this water is expressed by the first part and the cause for that evolution, by the second. Having thus explained the significance of the words in the aphorism now its general sense will be given.

THE GENERAL SENSE.

Shastras speak of a two-fold condition of water viz., that of Vidyut Jala or water in the form of electricity and Bhuta or ordinary water formed by the combination of the requisite elements. Of these the process of evolution of the former will be described first, thus:

अतएवसृष्टिबीजं ज्योतिरूपं महत्तरम् । वैद्युतोदकमुद्भूतमव्यक्तावरणोपरि ॥६॥
 यदेतस्मादभूत्सृष्ट्यां सृष्टिबीजविभागतः । तद्भूतोदकमित्याहुर्ज्ञानिनस्तत्त्वदर्शिनः ॥७॥
 वैद्युतोदकमेवासिन्सूत्रे सम्यक्प्रकीर्तितम् । एतेनैव जगत्सृष्टिरिति शास्त्रविनिर्णयः ॥८॥
 आपोवाद्दमग्रेसलिलमासन्निति श्रुतिः । आपएव ससर्जादावित्यादि स्मृतयस्तथा ॥९॥
 प्राहुस्सूत्रोक्तवैद्युतोदकमेव विशेषतः । एतदेव प्रकाशोदकमिति प्राहुरास्तिकाः ॥१०॥

॥ जलज्योति विलासेपि ॥

अप्यस्वरूपं प्रवक्ष्यामि पूर्वाचार्यैर्यथेति रतम् । अव्यक्तावरणान्तस्थचिन्मयस्याङ्गकंपनात् ॥११॥
 सृष्ट्यादौ यदभूदापस्तज्ज्योतीरस उच्यते । वैद्युतोदकमित्याहुस्तदेव ज्ञानवित्तमाः ॥१२॥

Owing to the mutual penetration of light and darkness, as aforesaid, their Guna Shaktis or the powers of their fundamental characteristics are subjected to a rapid friction. By this friction water in the form of electricity which is the germ of creation and which is resplendent and extensive, evolved on the surface of Avyakta halo. This kind of water is also known as "Prakasa Ūdaka" or water in the form of light or brilliance. On the other hand that water which came into existence by the combination of the component parts of Sisrukshata Shakti of Atma which is the primordial seed of creation and which evolved out of water in the form of electricity is styled by the learned as Bhuta water. It is the water in the form of electricity that is mentioned in this aphorism. And shastras declare that creation of the universe takes place from out of this kind of water only. The Sruti in its passages such as "Prior to creation water in the form of electricity came to existence" as well as Manu and other smritis in their passages such as "Prior to creation the Lord of creation called into existence water in the form of electricity" speak of this water in the form of electricity referred to in this aphorism.

This point is dealt with in a work known as 'Jala jyoti Vilasa' also wherein the author promises that he describes the origin and state of water in accordance with the ancient exponents of science. It is this:

तस्मिन्नव्यक्तपुरुषस्सृष्ट्यर्थजगतःक्रमात् । स्वसंस्कारप्रकाशैककिरणान्तर्गततः ॥१३॥
 स्वरूपविवृतहेतुंजीवशक्तिमवासृजन् । पश्चात्तदापोण्डमभूद्धेमरूपमहतरम् ॥१४॥
 तत्रत्यविवृतशक्त्यंशस्वरूपमहतरम् । अभजत्तत्सृष्टिजीवमण्डाकारंतथैवहि ॥१५॥
 यथासंक्ल्पितं पूर्वतथापश्चान्महेश्वरः । स्रवीजमष्टधाकृत्वाग्न्यादवन्तं यथाक्रमम् ॥१६॥
 तत्पिण्डात्क्रमतो ग्न्यादीन्समाहर्तुं स्वतेजसा । सुखाद्यादिश्चनपर्यन्तमष्टस्थानान्यथा-

क्रमम् ॥१७॥

तत्पिण्डे कल्पयामास पृथक् पृथक् प्रभेदतः । पश्चात्तेषु मुखस्थानाद्वाग्धिष्ठानरूपकम् ॥१८॥
 अग्निमाकर्षयामास सृष्ट्यर्थजगदीश्वरः । तथैव नासिकास्थानात्प्राणाधिष्ठानरूपकम् ॥१९॥

That water which came to existence prior to creation as a result of the shaking of the body of Avyakta Brahma who is in the Avyakta halo and who is in the form of radiance is known as 'Jyotee Rasa'. And this the learned call 'Vidyut Jala' or the water in the form of electricity. With this water thereupon the Avyakta Brahma, for the propagation of the Universe mixed the power of a ray of his Srashti Samkalpa or Cosmic Ideation which is delineated by the Sruti as 'Let me be Many', which is in the form of a seed or germ of creation of the universe and which has the property of enlarging itself into the form of the Universe. By this the said water got the shape of an enormous and resplendent egg (Anda). The germ of creation which is in the form of a portion of Vivruta shakti, which is extensive and which was mixed with that water, in its turn, assumed the shape of a human body (Pinda). In accordance with the Cosmic Ideation already volitioned, Maheswara, then, divided his Beeja Shakti or creative germ into eight parts, from Agni to Udaka i.e., from fire to water. Similarly he designed in the said body eight parts, from the mouth to the genitive organ, with a view to bring forth, by means of his glory fire etc., from those parts in order. For the purpose of propagating the Universe he then brought into existence:—

(1) Fire which is the support (Adhishtana) of speech from one part viz., the mouth of that body ;

वायुमाकर्षयामासनेत्रस्थानात्ततःपरम् । सूर्यमाकर्षयामासनेत्राधिष्ठानरूपकम् ॥२०॥

तथैवपश्चात्तत्पिण्डकर्णस्थानाद्यथाक्रमम् । श्रोत्राधिष्ठानरूपदिशस्सर्वान्समाहरत ॥२१॥

पश्चात्तथैवत्वक्स्थानाल्लोमाधिष्ठानरूपकान् । ओषधीनाहरन्नानाविधान्सौमप्रपोष-

कान् ॥२२॥

तथैवहृदयस्थानात्स्वांताधिष्ठानरूपकम् । समुद्धरच्चन्द्रमसंसुधामयमतःपरम् ॥२३॥

नाभिस्थानादपानाधिष्ठानरूपंतथैवहि । समाहरत्क्रमान्मृत्युंसर्वलोकविनाशकम् ॥२४॥

शिश्नस्थानात्तथैवाथरेतोधिष्ठानरूपकम् । आपस्समाहरद्वान्तशक्तिरूपंद्वात्मकम् ॥२५॥

एतदेवहिशास्त्रेषुभूतोदकमितीयै । जगत्सृष्ट्यर्थमेवंक्रमेणसाक्षान्महेश्वरः ॥२६॥

विभाजितस्ववीर्याशानग्न्याद्यबन्तरूपकान् । तत्पिण्डस्याष्टस्थानेभ्यस्समुद्धर-

द्यथाक्रमम् ॥२७॥

(2) Air which is the support of life (Prana), from the organ known as the nose of that body ;

(3) The sun who is the support of the faculty of sight, from, the organ of the eye of that body ;

(4) All the directions which are the support of the faculty of hearing, from the place of the ear of that body ;

(5) The entire vegetable kingdom which is the support of hairs and which is nourished by the moon, from the organ of skin of that body ;

(6) Chandra, the moon who is the support of Antahkarana and who is in the form of nectar, from the organ of heart of that body ;

(7) Mrutyu or death, the destroyer of the Universe which is the support of Apana, from the member, known as Nabhi or the navel ;

(8) Lastly, water which is the support of Retus (seminal fluid) and which is in the form of a liquid and Tama Shakti from the part known as the genitive organ of that body.

It should be noted here that it is this water that is known in Shastras as Bhuta-water.

पूर्वमव्यक्तसृष्ट्यर्थमव्यक्तावरणोपरि । यदापःप्रादुरासीत्तद्वैद्युदापइतीर्यते	॥२८॥
वैद्युतोदकमाहृत्यभगवान्जगदीश्वरः । चन्द्रमाद्यष्टस्थानेषुखेविभज्यनियोजयत्	॥२९॥
पश्चाद्विभज्याष्टधाभूतोदकंचतयैवहि । कूर्माद्यावातस्कन्धान्तमष्टस्थानेषुशंकरः	॥३०॥
भूगोळेस्थापयामासजगत्सृष्ट्यर्थमंजसा । चन्द्रमाद्यष्टस्थानीयशक्तिभिर्वैद्युतंजलम्	॥३१॥
पश्चात्संशोभितंतेननानात्वमभजत्कमात् । एवमेवहिभूगोळेभूतोदकमपिकमात्	॥३२॥
कूर्मादिशक्तिसंशोभादनेकत्वमवापहि । अनयोर्वैद्युतोदकंप्रकाशइतिशास्त्रतः	॥३३॥
भूतोदकंतमइतिप्रवदन्तिमनीषिणः । तेजःपुरुषइतिचसृष्टिबीजमितिकमात्	॥३४॥
तमःप्रकृतिरितिचबीजगर्भेतिशास्त्रतः । प्रवदन्तिविशेषेणज्ञानिनस्तत्त्वदर्शिनः	॥३५॥

In this way Parameswara caused the eight parts of his creative energy, to manifest themselves in order from out of the eight parts of the said embryo.

Then again that water which prior to creation appeared on the surface of the Avyakta halo, for the sake of Avyakta creation, is known as Vidūyut Jala or water in the form of electricity. The Lord of the universe then divided the water into eight parts and located them in the eight places such as the moon in the sky. In the same way the Bhuta water was also divided into eight parts and located, for the sake of creation of the Universe, in the eight places beginning with Koorma pitha and ending with Vatha Skandha of the terrestrial globe. In due course of time the water in the form of electricity present in each of the eight places of the sky, was agitated by the powers of the respective places of their abode and so it assumed various forms, in order. Similarly the Bhuta water existing in the eight places of the terrestrial globe was also excited by the powers of the respective places wherein it was located, underwent several changes and manifested in different forms. Of these two kinds, the water in the form of electricity is known, in Shastras, as Light and the Bhuta water, as darkness. The most enlightened seers and seekers of truth termed light as Purusha or man or the seed of creation and darkness, as Prakriti, Beeja garbha or embryo.

अन्योः प्रकृतिपुरुषरूपयोश्चान्ततेजसोः । संयोगतस्त्वभावेन भागसंख्यानुसारतः ॥३६॥
 अव्यक्तसंष्टिर्यत्कास्मादेतत्सृष्टिरित्येते । एतदेवात्मविवृतस्वरूपमिति चक्रमात् ॥३७॥
 इत्यादि ॥

॥ अस्तत्त्वप्रकाशिकायामपि ॥

अव्यक्तावरणान्तस्थनारायणाङ्गकंपनात् । तत्रत्यंतजस्तिमिरशक्तयोस्संघर्षणस्वतः ॥३८॥
 अभूत्परस्परपञ्चात्तेनात्यन्तोष्णमुद्रभौ । तदुष्णवेगात्संजातंवैद्युतोदकमद्भुतम् ॥३९॥
 इत्यादि ॥
 अतएवेत्यत्र सूत्रे एतत्कारणमीरितम् । वैद्युतोदक्रमेवापइत्यत्र प्रकटीकृतम् ॥४०॥

By the natural combination of the component parts of darkness and light which are Prakriti and Purusha, the unmanifest (Avyakta) creation became manifest. This is said to be creation of the Universe. This creation of the Universe is also known as the extended state of the form of Paramatma.

Aptatwa Prakasika, another Scientific work deals with the above points as follows.

"On account of the shaking of the body of Sri Narayana, the Unmanifest Being existing in the Avyakta halo, the light and darkness present in that halo were naturally subjected to mutual friction, whereby extreme heat was produced. By the intensity of this heat, water which is wonderful and is in the form of electricity came into existence.

In conclusion it is to be noted here, that the aphorism by its second part 'Athaeva' or 'Hence alone' points out the above cause for the evolution of the water in the form of electricity, defined by the first part, 'Apah'.

॥ सूत्रम् २३ ॥

॥ विद्युत्प्रकाशयोः परस्परापकर्षणमेकस्वरूपत्वादुभयत्रैकोनवतितमन्यायेन ॥

॥ बो. वृ ॥

पूर्वसूत्रे वैद्युतोदकोत्पत्तिस्मनिरूपिता । अस्मिन्नन्यक्तपुरुषवैद्युतोदकयोः क्रमात् ॥१॥

स्वरूपभूतविद्युत्प्रकाशयोरुभयोरपि । परस्पराकर्षणत्वं प्रोच्यते न्यायमानतः ॥२॥

एतत्प्रबोधकपदान्यस्मिन्पंचयथाक्रमम् । निर्णिता नियथाशास्त्रं पदच्छेदनतस्स्फुटम् ॥३॥

APHORISM 23.

Since the Imperceptible Being (Avyakta Purusha) and the water in the form of electricity have both a similar appearance, these two lights of electricity attract each other in accordance with the 89th axiom.

THE COMMENTARY.

The process of evolution of water in the form of electricity has been dealt with in the previous aphorism. The natural attraction taking place according to the 39th axiom between the two electric lights which are the common appearance or form of the Imperceptible Being (Avyakta Purusha) and the water in the form of electricity will be explained in this aphorism.

This aphorism consists of five words dealing with the said attraction. The first word names the electric brilliance which is the appearance of the Imperceptible Being and the water in the form of electricity. The second word states the mutual attraction taking place between them. The third word expresses that these two have the same appearance viz., electric brilliance. The fourth word mentions the Imperceptible Being and the water in the

तत्रादिमपदाद्विद्युत्प्रकाशौसन्निदर्शितौ । अन्योन्याकर्षणंतद्वितीयपदतत्त्वयोः ॥४॥

स्वरूपैकत्वमुक्तंस्यात्तृतीयपदतत्त्वथा । विद्युज्जलाव्यक्तपुरुषौतुर्गीयपदात्स्मृतौ ॥५॥

तथैवपंचमपदात्स्वतस्मिद्धोनिदर्शितः । पदार्थमेवमुक्तवाप्त्यसामान्यार्थोऽधुनोच्यते ॥६॥

॥ सामान्यार्थः ॥

अव्यक्तावरणान्तस्थपुरुषस्यतथैवहि । तदावरणबाह्यस्थविद्युज्जलस्यचक्रमात् ॥७॥

उभयोर्विद्युत्प्रकाशस्वरूपत्वंस्वभावतः । एकत्वादेवविद्युत्प्रकाशयोस्तत्स्वरूपतः ॥८॥

एकोनवतितमन्यायमानानुसारतः । आकर्षणमभूत्सम्यगुभयत्रपरस्परम् ॥९॥

॥ तदुक्तं सृष्टिविलासे ॥

अव्यक्तपुरुषविद्युद्धारिणोरुभयोः क्रमात् । विद्युत्प्रकाशाकारत्वमेकमेवेति निर्णितम् ॥१०॥

इत्यादि ॥

सूत्रेयदेकोनवतितमन्यायईरितः । तद्विविच्यात्रविधिवत्संग्रहेणिरूप्यते ॥११॥

form of electricity. The fifth word refers to the 89th axiom, in support of the statement made in the aphorism. Having thus interpreted the significance of the words of the aphorism, we shall now examine its general sense.

THE GENERAL SENSE.

According to the 89th axiom the two electric lights viz., that of the Imperceptible Being within the Avyakta halo and the water in the form of electricity without it, attract each other on account of the sameness of their appearance.

Sruti Vilasa also expounds the fact that the Imperceptible Being and water in the form of electricity are both identical in their form and appearance viz., electric brilliance. Having thus given the general sense of the aphorism we shall now quote the 89th axiom and explain it.

॥ स्वतस्मिद्वन्यायसूत्रम् ८९ ॥

॥ भिन्नवस्तुत्वेपिस्वरूपशक्त्यैक्यत्वेतयोः
परस्पराकर्षणंसहजम् ॥

॥ विश्वंभरवृत्तिः ॥

योत्राक्रोशभवेद्वस्तुभिन्नजातीयवस्तुनोः । स्वरूपशक्त्योरैक्यत्वेसत्यन्योन्यापकर्षणम् ॥ १२ ॥

सहजंस्यात्तयोस्तस्यगितिन्यायविनिर्णयः । इतित्रयोविंशतिकस्मूत्रार्थसंग्रहात्स्मृतः ॥ १३ ॥

॥ सूत्रम् २४ ॥

॥ तयोः प्रतिफलनमतस्तस्मिन्दर्पणा-
दित्यकिरणवत् ॥

THE 89TH AXIOM.

When the powers of two things though belonging to different kinds but having similar inherent and characteristic powers come together, the powers of these two things naturally attract each other. This is the axiom.

THE COMMENTARY.

It is natural that when the Swaroopa Shaktis or the characteristic powers of two things though of dissimilar type, come in contact with each other, they should attract mutually, provided their inherent powers are such as will make a uniform aggregate when they combine together. This fact has been set down as the 89th axiom.

Thus ends the 23rd aphorism.

APHORISM 24.

Hence the Avyakta Being and the water in the form of electricity reflected in the said darkness of Avyakta, just as the solar rays in a mirror. This is the aphorism.

॥ बो. वृ. ॥

पूर्वसूत्रेव्यक्तपुरुषवैद्युतोदकयोः क्रमात् । परस्परस्वस्वरूपशक्त्याकर्षणमीरितम् ॥

तथैवास्मिन्तयोस्सम्यगव्यक्ततमसिक्रमात् । कीर्त्यतेप्रतिफलनं परस्परस्वभावतः ॥२॥

प्रतिफलनबोधकपदान्यस्मिन्यथाक्रमम् । पदच्छेदनतः पञ्चनिर्णिता नियथाविधि ॥३॥

तत्रादिमपदाद्वारिपुरुषौ सन्निरूपितौ । तद्वत्तयोः प्रतिफलनत्वमुक्तं द्वितीयतः ॥४॥

तृतीयपदतस्तत्कारणत्वं सन्निरूपितम् । चतुर्थपदतो व्यक्ततमोरूपं निदर्शितम् ॥५॥

तथैव पञ्चमपदादृष्टान्तस्सन्निदर्शितः । पदार्थमेवमुक्तवास्या सामान्यार्थो धुनोच्यते ॥६॥

॥ सामान्यार्थः ॥

यथैव प्रतिफलनमादित्यकिरणस्य हि । भवेत्कृष्णमुखादर्शेतथैवात्यन्तवेगतः ॥७॥

पूर्वोक्ताव्यक्तपुरुषवैद्युतोदकयोस्तयोः । अतएव प्रतिफलनं तदव्यक्ततमस्य मूत् ॥८॥

THE COMMENTARY.

The previous aphorism has explained how mutual attraction between the powers of Avyakta or Unmanifest Being and water in the form of electricity takes place. This aphorism explains how they both naturally reflect in the darkness of Avyakta.

This aphorism is composed of five words dealing with the said reflection. The Avyakta or Unmanifest Being and the water in the form of electricity are named by the first word, the act of reflection of the said Unmanifest Being and the water in the form of electricity, by the second word, the cause for the reflection by the third word, the darkness of Avyakta halo by the fourth word and the example of the solar rays, by the fifth word.

Having thus interpreted the meaning of the words of the aphorism, we shall now proceed to examine its general sense.

THE GENERAL SENSE OF THE APHORISM.

Both the Avyakta Being and water in the form of electricity reflect in the darkness of Avyakta, owing to their natural and mutual attraction already explained, just as solar

॥ कृष्णमुखादर्शमुक्तदर्पणप्रकरणे ॥

कर्बुरपारदमौक्तिककुरटिसैकतद्रौणिकतुंबुरकन्दम् । प्राणशारस्फाटिकलवणंनल्लिकात्वक्सौ-
रिकफटिकारम् ॥९॥ टंकणवर्बुरनागकिशोरं मांचुळिकंपीतकंकणीमूलम् । एतान्व-
स्तून्शुद्धिकृत्वासमभागांशान्मूषामध्ये ॥१०॥ निक्षिप्याथशिवामुखकुंडे आच्छाद्यैगा-
लामिशिशयैः । वेगात्संगाल्य पंचोत्तरविंशतकक्ष्योष्णमानतस्सम्यक् ॥११॥
वैराजिकयंत्रमुखेतद्रसमुद्धृत्य सेचयेत्पश्चात् । एवंकृतेतिमृदुळ्यानांगंभारवर्जितंसुदृढम्-
॥१२॥ भवतिमनोहरमद्भुतभास्करकिरणपकर्षणंदिव्यम् । अत्यन्तसुन्दरास्यं कृष्णमु-
खादर्शमतिरुचिरम् ॥१३॥ इत्यादि ॥

rays, in a glass known as "Krishna Mukha" or a glass with a dark surface. This is the general sense of the aphorism.

The composition and the process of preparation of the Krishnamukha glass referred to in the aphorism is described in a work known as "Darpana Prakarana", thus :—

The list of the ingredients used in the manufacture of Krishnamukha glass.

- | | |
|-------------------|--------------------------|
| 1. Karbura | 10. Salt extracted from |
| 2. Mercury | sphatica stone (crystal) |
| 3. Shells | 11. The skin of crabs. |
| 4. Kuruti | 12. Saurika |
| 5. Sand | 13. Alum |
| 6. Draunika | 14. Borax |
| 7. Thumbara Kanda | 15. Barbura |
| 8. Saltpetre | 16. Naga Kishora |
| 9. Salammoniac | 17. Manchulika. |

18. Peetha Kanakrunee Moola.

Equal quantities of the above articles duly purified, should be filled in a crucible and placed in a furnace known as "Shiva Mukha Kunda", filled with charcoal, pieces of quartz etc., and be heated to the extent of 305 kakshyas or degrees. Then the mixture melts. This molten liquid should then be poured on the surface of an apparatus known as Vairajika.

चतुर्विंशतिसूत्रार्थसंप्रदायांनुसारतः । इतिसंकीर्तितसम्यक्संग्रहेणयथामति ॥१४॥

॥ सूत्रम् २५ ॥

॥ तस्मात्तदुपर्यनन्तसृष्टिपथरेखाप्रसारणं
सर्वत्र ॥

॥ बो. वृ. ॥

पूर्वसूत्रेव्यक्तपुरुषवैद्युतोदकयोः क्रमात् । परस्परशक्त्यपकर्षणमुक्तं यथाविधि ॥१॥

तथैवास्मिन्सृष्टिपथरेखानिर्णयमुच्यते । रेखाप्रबोधकपदान्यस्मिन्चतुः क्रमात् ॥२॥

This properly done, glass will result, known as Krishna Mukha which is very elastic, light, strong, fine, and bright, which is useful in the manufacture of air-ships, which attracts solar rays and which has a beautiful surface. Thus the shastra continues further.

This is the meaning of the 24th aphorism.

APHORISM 25.

Hence demarcating lines of creation in countless number were produced on all sides of the Avyakta halo. This is the aphorism.

THE COMMENTARY.

The previous aphorism has explained the natural and mutual cohesion (attraction) existing between the shaktis of the Avyakta Being and the water in the form of electricity. The lines or paths for the Brahmandas to be traced along will be described in this aphorism.

In this aphorism there are four words dealing with the said paths along which Brahmandas coming into existence, are to be located. The first word says that the mutual cohesion and intermixture of the powers of Avyakta Being and the water in

पदच्छेदनतस्सम्यङ्निर्णितानियथाविधि । तत्रादिमपदाच्छक्तिद्वयसंयोगकारणम् ॥३॥
 उक्तं द्वितीयपदतोव्यक्तावरणमीरितम् । रेखापथप्रसारणंतृतीयपदतस्सृष्टम् ॥४॥
 चतुर्थपदतस्तद्रेखापथस्थानमीरितम् । पदार्थमेवमुक्तत्वात्स्यसंग्रहेणयथाविधि ॥५॥
 सामान्यार्थोऽत्रविधिवत्कीर्त्येतसंप्रदायतः ॥

॥ सामान्यार्थः ॥

पूर्वोक्तशक्तिद्वयसंयोगकारणतः क्रमात् । अनन्तसृष्टिपथरेखाप्रसारणमद्भुतम् ॥६॥
 सर्वत्राभूतद्व्यक्तावरणोपर्यनेकधा । इतिशास्त्रेषुविद्वद्भिस्तत्रतत्रनिरूपितम् ॥७॥

॥ तदुक्तं ब्रह्माण्डसारे ॥

ब्रह्माण्डसृष्टिरेखापंथानश्शास्त्रेषुभूरिशः । अनन्ताइतिविख्यातास्तृष्टितत्त्वविशारदैः ॥८॥
 इत्यादि ॥

the form of electricity is the cause of the emanation of the paths along which the Brahmandas are to be located. The second word points out the Avyakta halo.

The third word declares the stretching forth of these paths. The fourth word fixes the place where these lines stretch out.

Having thus given the meaning of the words of the aphorism its general sense will be explained below.

THE GENERAL SENSE.

As a natural consequence of the inter-mixture of the powers of the Avyakta Being and the water in the form of electricity explained in the previous aphorism, a wonderful cluster of lines was produced on all sides of the Avyakta halo. This fact has been mentioned by the learned in several shastric works.

Brahmānda-sara may here be quoted as one of the above works. It says on the above point as follows :—

“The learned declare in shastras that the paths to fix the situation of Brahmandas are innumerable”.

Such is the general sense of this aphorism.

॥ सूत्रम् २६ ॥

॥ शक्त्योनव ॥

॥ बो. वृ. ॥

पूर्वसूत्रेसृष्टिरेखाप्रसारणमुदीरितम् । तासामस्मिन्यथाशास्त्रंकीर्त्यन्तेनवशक्तयः ॥१॥

शक्तिप्रबोधकपदद्वयमस्मिन्यथाक्रमम् । षदच्छेदनतस्सम्यङ्निर्णितंस्याद्यथाविधि ॥२॥

तत्रादिमपदाद्रेखाशक्तयस्सन्निर्दिशिताः । द्वितीयपदतस्तत्संख्याप्रमाणंनिरूपितम् ॥३॥

एवंपदद्वयार्थोक्तस्संप्रदायानुसारतः । सामान्यार्थोद्यसूत्रस्यसंग्रहेणनिरूप्यते ॥४॥

॥ सामान्यार्थः ॥

ब्रह्माण्डसर्जनपथरेखाणांशक्तयः क्रमात् । घनादिनवइत्युक्ताशशास्त्रेषुज्ञानवित्तमैः ॥५॥

APHORISM 26.

The Shaktis are nine. This is the aphorism.

THE COMMENTARY.

The previous aphorism explained how the lines along which Brahmandas are located, spread out. This aphorism names the nine shaktis of those lines.

The aphorism is made up of two words dealing with the said powers. The first word names the paths fixing the position of Brahmandas. The second word determines the number of their powers. This is the literal meaning of the aphorism, the general sense of which is as follows.

THE GENERAL SENSE OF THE APHORISM.

Eminent scientists of yore have declared in shastras that the number of powers of the paths locating the position of Brahmandas is nine, the first of which is "Ghana Shakti".

Srushti Vilasa wherein this point is dealt with at length, names these nine powers in order, thus.

- | | | | |
|--------------------|--------|----------------|--------|
| 1. Ghana | Shakti | 5. Prasarana | Shakti |
| 2. Akarshana | ,, | 6. Vikalpna | ,, |
| 3. Sankochana | ,, | 7. Garbhakrith | ,, |
| 4. Vikasana | ,, | 8. Pushti | ,, |
| 9. Jyoti Prakasika | | ,, | |

॥ तदुक्तं सृष्टिविलासे ॥

धनार्कगणसंकोचविकासनप्रसारणाः । विकरनागर्भकृच्चगुष्टिन्योतिपकाशकाः ॥६॥

इत्येते सृष्टिरेखाणां शक्तयो नवकीर्तिताः । ताखेतास्सहजा इति प्रोक्तास्तत्त्वविदांवरैः ॥७॥

इत्यदि ॥

॥ सूत्रम् २७ ॥

॥ तच्छक्त्यपकर्षणात् ध्वान्तसंमेलनं सर्वत्र ॥

॥ बो. वृ. ॥

पूर्वसूत्रेशक्तिपथरेखाशक्त्यईरिताः । तद्रेखध्वान्तसंमेलनमसिन्प्रचक्षते ॥१॥

तन्मेलनप्रबोधकपदानित्रीण्यथाक्रमम् । असिन्सूत्रे निर्णिगितानि पदच्छेदनतस्स्फुटम् ॥२॥

These are, in order, the nine powers of the paths fixing the position of Brahmandas. The learned declare that these powers exist in those paths naturally.

This is the general sense of the 26th aphorism.

APHORISM 27.

The darkness attracted by the said forces spread throughout and combined with the light of the paths along which Brahmandas are situated. This is the aphorism.

THE COMMENTARY.

The forces of the paths fixing the position of Brahmandas have been dealt with in the previous aphorism. This aphorism explains how the darkness of Avyakta halo spreads throughout and mixes with the light of the said paths.

To explain this pervasion of the darkness and the light four words have been employed in this aphorism. The first word refers to the attraction of the darkness of Avyakta halo by the forces of the paths fixing the locality of Brahmandas. The second word names the act of penetration of the said darkness by the light of those paths. The third word points out the extent to which the darkness spreads.

तत्रादिमपदाद्धान्ताकर्षणशक्तिभिस्समृत्तम् । द्वितीयपदतोऽन्तसंभेदनमुदीरितम् ॥३॥

संभेदनस्थानमुक्तं तृतीयपदतस्तथा । पदार्थमेवमुक्तत्रास्यसामान्यार्थोद्यकीर्यते ॥४॥

॥ सामान्यार्थः ॥

पूर्वोक्तव्यक्तमसियारेखासंप्रसारिताः । विद्युत्प्रकाशरूपास्तास्सृष्टिरेखास्वभावतः ॥५॥

तत्सृष्टिरेखाशक्तीनामपकर्षणतस्ततः । तामुरेखासुसर्वत्राव्यक्तस्थितमसः क्रमात् ॥६॥

संभेदनमभूत्संन्यगविनाभावतस्त्वतः । इत्तिसामान्यार्थमुक्तस्सूत्रस्यास्ययथामति ॥७॥

सूत्रम् २८

॥ तच्छक्तिसंयोगद्रोहिण्याविर्भाव
स्तस्मिन्षोडशोत्तरद्विशतन्यायेन ॥

॥ बो. वृ ॥

उक्त्वासंभेदनपूर्वसूत्रे तमप्रकाशयोः । तस्माच्छक्त्यन्तरोत्पत्तिस्सूत्रेस्मिन्सन्निरूप्यते ॥१॥

तदुत्पत्तिप्रबोधकपदान्यस्मिन्चतुः क्रमात् । पदच्छेदनतस्सम्यङ्निर्णयतानियथाविधि ॥२॥

This is the significance of the words in the aphorism, the general sense of which is as follows.

THE GENERAL SENSE.

The paths along which Brahmandas are situated proceed from the darkness of Avyakta halo and are full of electric brilliance. The forces of these paths attract darkness of the Avyakta halo which spreads throughout and combines with the light of the above demarcating lines.

This is the general sense of the 27th aphorism.

APHORISM 28.

By the intermingling of those forces a fresh force, Rohini by name was produced in the Avyakta halo in accordance with the 216th axiom. This is the aphorism.

THE COMMENTARY.

The previous aphorism explained the combination of the forces of the brilliance of the paths directing the situation of Brahmandas and that of the darkness of the Avyakta halo. This

तमप्रकाशयोः शक्तिस्तत्रादिमपदात्स्मृता । द्वितीयपदतदशक्त्यन्तरोत्पत्तिर्निर्दिष्टा ॥३॥

अव्यक्तावरणतद्वत्तृतीयपदतस्मृतम् । स्वतस्सिद्धन्यायमुक्तंचतुर्थपदतः क्रमात् ॥४॥

षडार्थमेवमुक्त्वास्यसंप्रदायानुसारतः । सामान्यार्थोऽयमविविक्तसंप्रहेणनिरूप्यते . ॥५॥

॥ सामान्यार्थः ॥

षोडशोत्तरद्विशतन्यायमानानुसारतः । तमप्रकाशयोः शक्तिसंयोगादेवकेवलम् ॥६॥

तस्मिन्नव्यक्तावरणेऽसृष्ट्याधारामहत्तरा । वैद्युतोदकमध्यस्थशक्तित्रयविभेदिनी ॥७॥

रोहिणीनामकाकाचिच्छक्तिः प्राविर्भूत्स्वतः । ब्रह्माण्डधारणीद्वेषास्वशक्त्यासर्वतोमुखा ॥८॥

॥ शक्तित्रयमुक्तंसृष्टिविलासे ॥

जलरेतोरसमयान्नब्रह्माण्डोत्पत्तिहेतुकाः । वैद्युतोदकमध्यस्थशक्तयस्त्रिविधास्मृताः ॥९॥

इत्यादि ॥

aphorism aims at explaining how, by this combination, a new force comes into existence.

This aphorism is composed of four words dealing with the emanation of a fresh force. The first word refers to the forces of the splendour of the lines directing the situation of Brahmandas and of the darkness of the Avyakta halo. The second word sets out the manifestation of a fresh force. The third word names the Avyakta halo. The fourth word mentions the 216th axiom. This is what the words of the aphorism import.

The purport of the aphorism:—

As a natural result of the combination of the two forces—one of the splendour of the paths fixing the position of Brahmandas and the other of the darkness of the Avyakta halo—a third force known as Rohini which is the support of the entire creation and which can analyse the three forces contained in the said water in the form of electricity, was produced in the Avyakta halo in accordance with the 216th axiom. This wonderful force by virtue of its all-pervading capacity supports countless Brahmandas in creation.

एवंसामान्यार्थमुक्त्वासूत्रस्यास्ययथाक्रमम् । स्वतस्सिद्धन्यायसूत्रसंग्रहेणाद्यकीर्त्यते ॥१०॥

॥ स्वतस्सिद्धन्यायसूत्रम् २१६ ॥

॥ शक्तिद्वयसंयोगेशक्त्यंतराविर्भावस्सहजम् ॥

॥ विश्वंभरवृत्तिः ॥

सजातीयविजातीयप्रभेदाच्छक्तयोद्विधा । शक्तिद्वयसमायोगस्तयोर्यत्रभवेत्क्रमात् ॥११॥

तत्रशक्त्यंतरोत्पत्तिस्सहजंस्यादितीरितम् । इतिस्वतस्सिद्धसूत्रप्रोक्तन्यायविनिर्णयः ॥१२॥

एवमष्टाविंशतिकसूत्रार्थस्संप्रदायतः । समालोच्ययथाशास्त्रंसामान्येननिरूपितम् ॥१३॥

॥ सूत्रम् २९ ॥

॥ तत्संयोगात्तूघनत्वंतच्छक्तीनाम् ॥

Referring to the water in the form of electricity, Srushti Vilasa says that it is the primordial matter of all creation and that it is made up of the three forces viz., water, Retus or semen and Rasa or spirit of Atma.

THE 216TH AXIOM.

Two forces coming in contact with each other give rise to a third one. This is the axiom.

VISWAMBHARA'S COMMENTARY.

All forces are, by nature, of two kinds viz., like and unlike. Thus wherever a like and an unlike force join together, they naturally give rise to a third force, altogether different from the previous two. This natural phenomena has been set down as a self-evident truth.

APHORISM 29.

By its contact those forces got solidified. This is the aphorism..

THE COMMENTARY.

Having explained the origin of the force viz., Rohini in the previous aphorism, the process of solidification of the three

॥ बो. वृ ॥

रोहिण्याविर्भावमुक्त्वापूर्वसूत्रेयथाविधि । वैद्युतोदकशक्तीनामस्मिन्वनत्वमीर्यते ॥१॥
 घनप्रबोवक्रपदान्यस्मिन्त्रीणियथाविधि । पदच्छेदनतस्सम्यङ्निर्णितानियथाक्रमम् ॥२॥
 पूर्वाक्त्तरोहिणीशक्तिस्तत्रादिमपदात्स्मृता । द्वितीयपदतस्तद्वदनत्वंसन्निदिशितम् ॥३॥
 तृतीयपदतोविद्युज्जलशक्तयईरिताः । पदार्थमेवमुक्त्वास्यासामान्यार्थोऽधुनोच्यते ॥४॥

॥ सामान्यार्थः ॥

पूर्वोक्त्तरोहिणीशक्तिसंयोगेनयथाक्रमम् । त्रिविधानांवैद्युतोदकशक्तीनांस्वभावतः ॥५॥
 घनत्वमभवत्सम्यगितिसूत्रार्थनिर्णयः । एवंसामान्यार्थमुक्त्वासूत्रस्यास्ययथामति ॥६॥
 अथेदानींसंग्रहेणविशेषार्थोऽनिरूप्यते ॥

॥ विशेषार्थः ॥

॥ घनत्रयस्वरूपमुक्तं ब्रह्माण्डसारे ॥

forces of water in the form of electricity will be described in this aphorism.

This aphorism consists of three words dealing with solidification of the above three forces. The first of these words names Rohini Shakti referred to above, the second word states that those forces get solidified and the third word names the three forces of which water in the form of electricity is made up. This is the meaning of the words of the aphorism.

. THE GENERAL SENSE.

By the contact of Rohini shakti, the three forces of water in the form of electricity got naturally solidified. This is the general sense of the aphorism.

The technical explanation.

The nature of the three solids is explained in Brahmandasara thus:—

Prior to creation there existed only Paramatma, who is the origin of all light and who is infinite, eternal, unmanifest and free from gunas. For the sake of the creation of the Universe He

आदिदेवो महादेवः परमात्मा सनातनः । निराकारो निर्गुणो भूत्सृष्ट्यादावेक एव हि ॥७॥
 स्वयमेव परात्मा यत्सृष्ट्यर्थं लीलया कृमात् । अव्यक्तरूपमासाद्य तमसा भासयन् स्वतः ॥८॥
 आप एव स सर्जदीर्खा गाढनत्रयात्मकम् । आपो घनस्यात्प्रथमो ततो रेतो घनस्मृतः ॥९॥
 पश्चाद्रसघन इति प्रोक्तं जलघनत्रयम् । व्यक्ताव्यक्तविभागाभ्यां षिडब्रह्मांडयोः पुनः ॥१०॥
 पृथिवी देहजीवादिविकारेण यथाक्रमम् । विवृताकारतो ह्येते त्रिघना एव केवलम् ॥११॥
 प्रपंचाकारतस्सम्यग्भ्राजन्ते सर्वतोमुखाः । सृष्टिबीजमिति प्राज्ञास्तान्येवाहुर्विशेषतः ॥१२॥
 इत्यादि ॥

॥ प्रपंचलहरीमपि ॥

अव्यक्तरूपो भगवान्सृष्ट्यर्थं स्वांगतस्त्वयम् । आप एव स सर्जदीर्घनत्रयात्मकं कृमात् ॥१३॥
 इत्यादि ॥

got the form of Avyakta and joining with darkness, gave birth to water alone, which is in the form of the Ghana Traya or the three solids. The first of these solids is Jalaghana, the second Retoghana and the third Rasaghana. These three solids themselves assuming different forms such as the earth, the body and the soul extend into the form of the entire universe. It is these three solids which assume countless forms that the shastras speak of as the seeds of creation.

A similar account is given in Prapancha Lahari also on this point. It is this.

The Avyakta Being for the purpose of propagating the universe gave rise to water alone originally from out of His own body. This water included ghanatraya.

By ghanatraya the three solids viz, of water, of retus or semen and of Rasa or spirit are meant.

In this connection Manu Smriti also observes as follows—

Prior to creation Parabrahma, who is beyond the perception of the senses, who cannot be known by the ignorant, who is subtler than Akasa, who cannot be seen by the fleshy eye-balls, who is eternal, who is the aggregate and common form of all

॥ मनुस्मृत्यामपि ॥

योसावतीन्द्रियोग्राह्योमूर्ध्मोव्यक्तस्सनातनः । सर्वभूतमयोचित्यस्सएवत्ययमुद्भवौ ॥१४॥
सोभिध्यायशरीरात्स्वात्सिष्टष्टुर्विधाः प्रजाः । आपएवससर्जदौतासुबीजमवांसृजत् ॥१५॥

बीजं नाम जलघन, रेतोघन, रसघनस्वरूपमिति ज्ञेयम् ॥

॥ सूत्रम् ३० ॥

॥ विद्युच्छक्त्यपकर्षणात्तासुघनत्रयव्याप्ति- स्सर्वत्र ॥

॥ बो. वृ. ॥

वैद्युतोदकशक्तीनां घनत्वं पूर्वसूत्रतः । उत्त्वाघनत्रयव्याप्तिस्तदेखास्वत्रकीर्त्यते ॥१॥
तद्व्याप्तिबोधकपदान्यस्मिन्नुतुःक्रमात् । पदच्छेदनतस्सम्यङ्निर्णिता नियथाक्रमम् ॥२॥

created phenomena and whose form cannot be conceived, existed alone. With a view to propagate different kinds of human beings He then created water itself as the nucleus of all the objective universe, from out of His own body. Thereupon he dissolved in it His own semen which is in the form of the three solids viz., of Jala, Retus and of Rasa which are the origin of the earth, body and Jeeva or the spirit of Atma respectively.

This is the technical explanation of the 29th aphorism.

APHORISM 30.

By the attraction of electricity, the forces of the said three solids pervaded them entirely. This is the aphorism.

THE COMMENTARY.

The previous aphorism dealt with the process of solidification of the forces of the water in the form of electricity. This aphorism explains how the forces of the three solids named above pervade throughout the lines directing the situation of the Brahmandas.

तत्रादिमपदात्प्रोक्तंविद्युच्छक्त्यपकर्षणम् । द्वितीयपदतत्सृष्टिरेखास्सम्यक्प्रदर्शिताः ॥३॥

घनत्रयव्याप्तिरुक्तातृतीयपदतस्तथा । चतुर्थपदतोव्याप्तिस्थानंसम्यक्प्रदर्शितम् ॥४॥

पदार्थमेवमुक्त्वास्यसूत्रस्यविधिवत्क्रमात् । संग्रहेणयथाशास्त्रंसामान्यार्थोऽधुनोच्यते ॥५॥

॥ सामान्यार्थः ॥

पूर्वोक्तसृष्टिरेखाणांविद्युच्छक्त्यपकर्षणात् । अन्तर्बहिश्चसर्वत्रतद्रेखासुयथाक्रमम् ॥६॥

जलशक्तित्रयघनव्याप्तिरन्योन्यतस्त्वतः । अभूदितियथाशास्त्रंसामान्यार्थोऽनिरूपितः ॥७॥

॥ सूत्रम् ३१ ॥

॥ शक्तित्रयसंयोगाद्ब्रह्माण्डाविर्भावस्तासु- जलबुद्बुदवत्षोडशोत्तरद्विशतन्यायेन ॥

This aphorism consists of four words dealing with the process of pervasion of the three solids. The first of these words points out the attraction of electricity of the lines directing the situation of the Brahmandas ; the second word names the paths fixing the position of the Brahmandas ; the third word mentions the action viz., pervasion that takes place in those lines; and the fourth word points out the place where the pervasion takes place. This is the meaning of the words in the aphorism.

THE GENERAL SENSE.

Being attracted by the electricity of the paths directing the situation of the Brahmandas, the forces of the Ghana Traya or the three-solids, (of Jala, Rasa and Retus) present in water in the form of electricity, naturally spread and pervaded in all those paths throughout. This is the general sense of the aphorism.

APHORISM 31.

By the combination of the three forces, the Brahmandas evolved in those paths directing the situation of the Brahmandas, just like bubbles in water in accordance with the 216th axiom. This is the aphorism.

॥ बो. वृ. ॥

पूर्वसूत्रे घनत्रयशक्त्या सिनिरूपिता । अस्मिन्तत्सृष्टिरेखासु ब्रह्माण्डोत्पत्तिरुच्यते ॥१॥
 ब्रह्माण्डोत्पत्तिबोधकपदान्यस्मिन्यथाक्रमम् । पदच्छेदनतः पञ्चनिर्णिता नियथाविधि ॥२॥
 तत्रादिमपदाच्छक्तित्रयसंमेलनं स्मृतम् । ब्रह्माण्डाविर्भावमुक्तं द्वितीयपदतस्तथा ॥३॥
 तृतीयपदतस्तत्सृष्टिरेखास्सम्यक्प्रदर्शिताः । दृष्टान्तमण्डोत्पत्तिविधौ चतुर्थपदतस्तस्मृतः ॥४॥
 तथैव पञ्चमपदात्स्वतस्मिन्निदर्शितः । पदार्थमेवमुक्तवास्य सामान्यार्थो ध्रुनोच्यते ॥५॥

॥ सामान्यार्थः ॥

सृष्टिरेखासमुत्पन्नविद्युच्छक्तिस्तथैव च । अव्यक्तस्थितमोशक्तिरशक्तिर्घनत्रयस्य च ॥६॥
 इमास्त्रिंशक्तयस्सम्यग्ब्रह्माण्डोत्पत्तिहेतुकाः । पूर्वोक्तसृष्टिरेखासु आसां संमेलनात्स्वयम् ॥७॥
 षोडशोत्तरद्विशतन्यायमानानुसारतः । ब्रह्माण्डोत्पत्तिरभवज्जले बुद्बुदवत्क्रमात् ॥८॥
 इत्युक्तमेतसूत्रस्य सामान्यार्थो यथाक्रमम् । समालोच्य यथाशास्त्रं संग्रहेण यथामति ॥९॥

THE COMMENTARY.

Pervasion of the forces of the three solids was dealt with in the previous aphorism while the manifestation of the Brahmandas is explained in this aphorism.

In this aphorism there are five words dealing with the process of emanation of the Brahmandas. The first word refers to the three forces viz: (1) the electricity of the paths directing the situation of the Brahmandas, (2) the darkness of the Avyakta halo and (3) the Ghana Traya or the three solids. The second word means the emanation of the Brahmandas coming into existence, as the result of the combination of the above three powers. The third word names the paths directing the situation of the Brahmandas. The fourth word offers a parallel to this Phenomena. The fifth word refers to the 216th axiom. This is the meaning of the words in the aphorism.

THE GENERAL SENSE.

By the combination of the three powers viz: (1) the power emanating from the paths directing the situation of the Brahmandas, (2) the power of darkness of the Avyakta halo and (3) the

॥ सूत्रम् ३२ ॥

॥ तद्धनशक्त्यांतदितरशक्त्यंशसंगेऽपि तस्मिन्प्रसारितरेखानुसारेण ॥

॥ बो. वृ. ॥

ब्रह्मांडाविर्भावमुक्त्वापूर्वसूत्रेयथाक्रमम् । तदाविर्भाववास्मिन्विशदीकृत्यकीर्त्यते	॥१॥
पदानिपंचसूत्रेस्मिन्निर्णिगितानियथाविधि । तत्रादिमपदादुक्तब्रह्माण्डस्सन्निर्दिशितः	॥२॥
तथाविद्युज्जलघनशक्तिरुक्ताद्वितीयतः । तृतीयपदतोर्ध्वांतविद्युच्छक्त्यंशईरितः	॥३॥
चतुर्थपदतोवैद्युतोदकंसन्निर्दिशितम् । तथैवपंचमपदात्सृष्टिरेखाः प्रदर्शिताः	॥४॥
एवंक्रमेणसूत्रस्यपदार्थस्सन्निरूपितः । सामान्यार्थोद्यविधिवत्संग्रहेणप्रचक्षते	॥५॥

power of Ghana Traya of water in the form of electricity. Brahmandas appeared in the said paths, just as bubbles in water, according to the 216th aphorism which has been quoted and explained already. This is the general sense of the aphorism.

APHORISM 32.

By the fusion of other forces with Ghana Shakti, the Brahmandas emanated in the said paths (directing the situation of the Brahmandas) proceeding from water in the form of electricity. This is the aphorism.

THE COMMENTARY.

The process of evolution of Brahmandas dealt with in the previous aphorism is further explained in this aphorism.

There are five words in this aphorism. Of these the first word refers to the Brahmandas mentioned in the previous aphorism. The second word names the jala ghana shakti of water in the form of electricity. The third word points out the component parts of darkness and light of the paths directing the situation of the Brahmandas. The fourth word names water in the form of electricity. The fifth word indicates the lines accommodating the Brahmandas. This is the meaning of the words in the aphorism.

॥ सामान्यार्थः ॥

पूर्वविद्युज्जलघनशक्तिरित्युदीरितम् । तस्यांतदितरध्वान्तविद्युच्छक्तयोर्यथाक्रमम् ॥६॥

तत्तद्भागानुपारेणयुनस्तस्मैलनात्स्वतः । जलेप्रसारितसृष्टिरेखानुसारतः क्रमात् ॥७॥

तस्मिन्विद्युज्जलेतद्वद्भांडोत्पत्तिरितिस्मृतम् ॥

॥ शक्तयंशस्सृष्टिविलासेनिरूपितः ॥

शक्तयस्त्रिविधाः प्रोक्ता ब्रह्मांडोत्पत्तिहेतुकाः । सृष्टिरेखानुवर्तन्ते स्वभावादेव केवलम् ॥८॥

तासु विद्युद्भवान्तशक्ती सृष्टिरेखास्वरूपके । एका विद्युज्जलघनशक्तिर्व्यापकरूपिणी ॥९॥

क्रमादेतज्जलघनशक्त्यां सम्यक्स्वभावतः । रेखा विद्युद्भवान्तशक्तयोस्तत्तद्भागानुसारतः ॥१०॥

संमेलनात्स्वभावेन वेगात्तद्वैद्युतोदके । संघर्षणं भवेत्पश्चात्तद्वेगेन स्वभावतः ॥११॥

THE GENERAL SENSE.

By the natural combination of the component parts of the two powers viz, electricity and darkness, present in the lines along which Brahmandas are situated, Brahmandas manifested in the said lines proceeding from water in the form of electricity.

Dealing with the nature and component parts of the above shaktis, Srushti Vilasa observes as follows :—

The Shaktis which are the origin of Brahmandas are said to be three. These three powers are present in the paths of Brahmandas. Of these, electricity and darkness are the two powers of which the lines are formed. The third power viz., Jalaghana shakti is not an essential factor of the composition of those lines but gains entrance in them by penetration. It is therefore known as "Vyapaka Shakti". Well, on account of the natural combination of the two shaktis viz., electricity and darkness with Jalaghana shakti, a rapid friction resulted in water in the form of electricity. By this friction, another shakti, Badaba by name, having heat to the extent of one Mahapadma degrees came to existence. By the extreme heat of

महापद्मोष्णस्वरूपाकाचिच्छक्तिर्महत्तरा । संजाताबाडबानाममहाज्वालासमाकुला ॥१२॥
 क्षीरेमंडनवत्पद्मत्तच्छक्तेरुष्णतःक्रमात् । विद्युज्जलैकांशमात्रमंडत्वमभजत्स्वतः ॥१३॥
 एतद्वत्कांडमित्याहुश्शास्त्रेषुज्ञानवित्तमाः । यथाचौदुंबरेवृक्षे आमूलप्रंशोदयः ॥१४॥
 भवेत्तथैवासंमंतात्सृष्टिरेखासुभूरिशः । अनेककोटिब्रह्माण्डान्येवमेवभवन्तिहि ॥१५॥

इत्यादि ॥

॥ भागांशनिर्णयः कृतः तत्रैव ॥

तत्रव्यापकशक्त्यंशस्त्रैकांशइतिकीर्तितः । पंचैकांशइतिप्रोक्तंविद्युच्छक्तेस्तथैवहि ॥१६॥
 तमोशक्तेर्दशैकांशइतिभागविनिर्णयः ॥ इत्यादि ॥

this Badaba power one-tenth part of water in the form of electricity got solidified just as cream is formed on the surface of milk. It is this solid, that savants of scientific lore of yore declare in shastras, as a Brahmanda. It is further stated that myriads of such Brahmandas manifest in this way, throughout the paths branching from out of water in the form of electricity, just as fruits in all branches of a glomerous fig tree.

The proportion of the component parts of the above powers is shown in the following table, in accordance with the work above quoted.—

Name of power	Amount of the component parts
1. Vyapaka shakti	.... 1/3 part
2. Electricity	... 1/5 ,,
3. Darkness	... 1/10 ,,

Thus ends the commentary of this aphorism.

॥ सूत्रम् ३३ ॥

॥ एतत्पञ्चदशात्मकः कुण्डलिन्याम् ॥

•॥ बो. वृ ॥

ब्रह्माण्डानां पूर्वसूत्रे स्मृतमुत्पत्तिकारणम् । श्वेतवाराहकल्पब्रह्माण्डस्य त्रयथाक्रमम् ॥१॥
 स्थानसंख्यां च गणितागममार्गानुसारतः । कीर्त्यते सिन्धुसंग्रहेण तेषु सम्यग्यथाविधि ॥२॥
 तत्र वाराहकल्पब्रह्माण्डमादिपदात् स्मृतम् । द्वितीयपदतस्तद्वत्तत्संख्यासन्निदिशिता ॥३॥
 तृतीयपदतश्चापितत्स्थानसन्निदिशितम् । पदार्थमेव मुक्त्वा स्य सामान्यार्थोऽधुनोच्यते ॥४॥

॥ सामान्यार्थः ॥

अव्यक्तपञ्जरस्थितविद्युज्जलोपरिक्रमात् । ब्रह्माण्डानां सृष्टिरेखापंथानस्सर्वतोमुक्ताः ॥५॥
 संत्यनन्तास्वभावेन तन्मध्ये तु यथाक्रमम् । अस्तिकाचित्कुण्डलिनीनामरेखाशलाकवत् ॥६॥

APHORISM 33.

This Swetha Varaha Kalpa Brahmanḍa is numbered the fifteenth crore in Kundalini, one of the paths of the Brahmanḍas.

This is the aphorism

THE COMMENTARY.

The cause of creation of Brahmanḍas was dealt with in the previous aphorism. The situation and the serial number of one of them viz., the Swetha varaha kalpa Brahmanḍa will be briefly and authoritatively explained in this aphorism.

Of the three words of this aphorism, the first stands for the Swetha varaha kalpa Brahmanḍa. The second word gives the serial number viz., 15th crore occupied by that Brahmanḍa. The third word names the position or situation of that Brahmanḍa. Having thus given the meaning of the words of the aphorism, we shall deal with its general sense.

THE GENERAL SENSE.

On the surface of water in the form of electricity, present in the Avyakta Panjara, there exist countless number of paths

यथोदुंबरवृक्षसंत्यामूलाग्रंफलानिहि । तथैवतत्कुंडलिनीरेखायांचविशेषतः ॥७॥
 अनेकक्रोष्टिब्रह्मांडान्यामूलाग्रंवसंतिहि । तेष्वेतच्छ्वेतवाराहकल्पब्रह्मांडगोळकम् ॥८॥
 अव्यक्तात्पंचदशकोट्यात्मकमितिस्फुटम् । वाल्मीकिगणितरीत्यागणितांगमपारगैः ॥९॥
 विशदीकृत्यविधिवन्निर्णितंविबुधैः क्रमात् । ननुवाराहकल्पस्यब्रह्माण्डगणनेक्रमात् ॥१०॥
 संख्याभेदेनविबुधाः परस्परंविरोधतः । वदन्तिनानांप्रभेदात्तस्मादंडेयथार्थतः ॥११॥
 निश्चित्यपंचदशकोट्यात्मकमतिक्रमात् । कथंनुग्रहेतवकुंतस्माच्छास्त्रंनिरर्थकम् ॥१२॥
 बाढं (नूनं) त्वयायदुक्तंतच्छास्त्रंनमहतेयतः । शास्त्रानुभवदूरत्वात्केवलस्यान्निरर्थकम् ॥१३॥
 शास्त्रप्रमाणमस्माकंस्वानुभूतिस्तथैवच । तस्माद्यदुक्तमस्माभिर्ब्रह्मांडगणनेक्रमात् ॥१४॥
 शास्त्रानुभवसिद्धत्वात्ज्ञानिनांप्राह्यमेवतत् । निरंतुवापिनन्दस्त्वज्ञानाच्छास्त्रपराङ्मुखाः ॥१५॥
 श्वेतवाराहकल्पब्रह्माण्डस्यगणनक्रमे । कावाहानिस्तत्प्रमाणंसमालोच्यत्रकीर्त्यते ॥१६॥

on all sides, to accommodate the Brahmandas. One of them is Kundalini, which is like a straight bar of iron and throughout it are accommodated many crores of Brahmandas just like nuts and fruits in the branches of a glomerous fig tree from the bottom to the top. Of these several Brahmandas in Kundalini, the Swetha varaha kalpa brahmanda bears the serial number of 15th crore from the Avyakta kendra, as calculated by expert mathematicians of yore, according to the Valmiki Ganita.

On this statement one may raise an objection, thus—

“Well sir, it is an admitted fact that scholars, while calculating the rank of the Brahmandas, differ in the rank they give to the Swetha varaha kalpa Brahmanda. So how can it be established that the rank of the Swetha varaha kalpa Brahmanda is fifteenth crore? Mathematical calculations require precision and since scholars fail to arrive at a definite number as the rank of this Brahmanda but differ enormously, the above statement is wrong and the shastra is therefore erroneous.”

The author answers this objections as follows—

“Well, O wise opponent, it behoves persons of your stamp

॥ तदुक्तमण्डनिर्णयाधिकारे ॥

ब्रह्माण्डपरिगणनविधौ गणितशास्त्रतः । गणितज्ञैर्निर्णिता निर्केन्द्राणि द्वादश क्रमात् ॥१७॥
 ब्रह्माण्डकल्पोक्तरीत्या तेषां नामान्यथाक्रमम् । संगृह्यात्र यथाशास्त्रं संग्रहात् सन्निरूप्यते ॥१८॥
 महापथो व्यवक्तुर्मवारुणोक्तिरगस्तथा । ज्वालामुखो वृष्णि च क्रोवा तस्तंभो ग्रहस्तथा ॥१९॥
 शेषो गजधृवश्चेति प्रोक्तास्तुर्द्वादशधृवाः । एकैकधृवमारभ्य ब्रह्माण्डान्तं यथाविधि ॥२०॥
 गणितागमोक्तरीत्या गुणितं चेद्यथाक्रमम् । ब्रह्माण्डगणनविधिर्भिन्नतेर्केन्द्रभेदतः ॥२१॥
 महापथक्रमेणेतद्ब्रह्मांडगणयेद्यदि । लक्षणां षोडशतथापट्महस्रोपरिक्रमात् ॥२२॥
 एकादशोत्तरशतात्मकोऽडमितिकीर्त्यते । अव्यक्तकेन्द्रात्तत्पंचदशकोट्यात्मकं भवेत् ॥२३॥

to raise such an objection. But note that it is quite opposed to the shastra as well as practical experience of mathematical calculations and so your objection becomes useless. On the other hand note that our statement is backed up both by the Shastra and experience and so it is accepted by the learned. Those that are ignorant of the shastra may appreciate or deprecate it. It does not in the least affect the theory propounded by the above statement. With a view to prove the error of your objection and the precision of our statement, we shall explain the method of calculating the rank of the Swetha varaha kalpa brahmamda, as given in Anda Nirnayadhikara, thus—

“Expert mathematicians declare that there are twelve kendras, centres or starting-points, whence the rank of the Swetha varaha kalpa brahmamda is calculated and determined. We shall give below the names of those kendras as enumerated in Brahmanda kalpa.

List of kendras or starting points.

- | | |
|----------------------------|---------------------------------|
| 1. Mahapatha kendra mukha. | 7. Vrishni chakra kendra mukha. |
| 2. Avyakta „ | 8. Vata stambha „ |
| 3. Koormadhruva „ | 9. Graha „ |
| 4. Varunidhruva „ | 10. Sesha „ |
| 5. Kirana „ | 11. Gaja „ |
| 6. Jwala mukha „ | 12. Dhruva „ |

तदेवकूर्मधृवात्संगुण्यतेचेद्यथाविधि । पंचाशत्कोट्यैकलक्षत्रिसहस्रशतात्मकम्	॥२४॥
श्वेतवाराहकल्पब्रह्मांडंभवतिसंख्यया । पुनस्तद्धारुणकेंद्रस्थानात्संगुण्यतेयदि	॥२५॥
दशकोट्यशीतिलक्षदशसाहस्रकोपरि । द्वात्रिंशदुत्तरशतात्मकंभवतिहिक्रमात्	॥२६॥
एवंक्रमेणकिरणकेंद्रस्थानादिभिःक्रमात् । संगुण्यतेचेद्ब्रह्मांडस्थानसंख्यापृथक्पृथक्	॥२७॥
प्रभिद्यतेविशेषेणतत्तत्केंद्रप्रभेदतः । अव्यक्तकेंद्राद्गणितगणनक्रमभेदतः	॥२८॥

“Thus the number of the Swetha varaha kalpa Brahmanda differs according to the difference of the kendra, whence the number is counted. We shall take a few instances and prove thereby how this difference in calculation results. The number or rank of the Swetha varaha kalpa brahmanda is found to be 1606111th when calculated from Mahapathar; fifteenth crore when calculated from Avyakta kendra mukha; fifty crores, one lakh, three thousand and one hundredth from koorina dhruva kendra mukha; ten-crores, eighty lakhs, ten thousand one hundred and thirty-second from Varuni kendra mukha. In this way when calculated from the said other kendras such as kirana kendra mukha and so on, the number and rank of the Brahmanda will be found to vary considerably, of course, considering the kendra or origin whence the calculation is made.

“In conclusion, it is to be noted that the rank of the Swetha varaha kalpa brahmanda, when calculated from the Avyakta kendra mukha has been found to be fifteenth crore and it is this number that is mentioned in the above statement. It must be borne in mind here that though the ranks of the Brahmandas vary according to the point taken for calculation, yet all of them point to the same brahmanda viz., the Swetha varaha kalpa brahmanda. Thus the number cited in the above statement with reference to the Swetha varaha kalpa Brahmanda has been accepted by shastras as precise and authenticated. So, O wise opponent, the objection you put forth has been proved to be mischievous, while the statement of the shastra is quite correct and unobjectionable.”

श्वेतवाराहकल्पब्रह्मांडमत्रयथाक्रमम् । निर्णितं स्यात्पंचदश कोट्यात्मकमिति स्फुटम् ॥२९॥

एतेन ब्रह्मांडभेदं वक्तुं न भवति ध्रुवम् । एवं शास्त्रप्रमाणत्वाद्ब्रह्मांडगणनक्रमः ॥३०॥

अंगीकृतं हि विद्वद्भिस्सिद्धान्तत्वेन केवलम् । तस्माद्यदुक्तं शास्त्रे तत्पूर्वपक्षमसंगतम् ॥३१॥

॥ सूत्रम् ३४ ॥

॥ शतकोट्योजनप्रमाणमेतत् ॥

॥ बो. वृ. ॥

ब्रह्मांडसंख्यां स्थानं च पूर्वमूत्रे निरूपितम् । तत्प्रमाणं च सूत्रे सिन्यथाशास्त्रं प्रचक्षते ॥१॥

प्रमाणबोधकपदद्वयमस्मिन्निर्णितम् । तत्रादिमपदादंष्ट्रप्रमाणं संप्रदर्शितम् ॥२॥

द्वितीयपदतस्तद्ब्रह्मांडसन्निरूपितम् । पदार्थमेव मुक्तास्य सामान्या यो धुनो च्यते ॥३॥

By this it is to be noted that the rank of the Swetha varaha kalpa Brahmanda viz., 15th crore mentioned in the above statement has been confirmed. This is the general sense of the aphorism.

APHORISM 34.

The extent of this Swetha varaha kalpa brahmanda is one hundred crores of yojanas. This is the aphorism.

THE COMMENTARY.

The previous aphorism dealt with the rank and the position of the Swetha varaha kalpa brahmanda. This aphorism gives the extent of this brahmanda according to shastric calculation.

Of the two parts of this aphorism the first mentions the extent of the brahmanda while the second gives the name of the brahmanda. This is the interpretation of the two parts of the aphorism.

THE GENERAL SENSE.

The learned have calculated the extent of the several crores of brahmandas in creation and have put down their results

॥ सामान्यार्थः ॥

अत्रैककोटिब्रह्मांडप्रमाणानियथाक्रमम् । शास्त्रेष्वनेकधासम्यक्प्रोक्तानिज्ञानवित्तमैः ॥४॥

तेषुवासाहकल्पब्रह्मांडमानं प्रमाणतः । शतकोट्योजनमिति निर्णितं सूत्रतः क्रमात् ॥५॥

॥ तदुक्तमण्डकौस्तुभे ॥

पंचाशत्कोटिविस्तीर्णपंचाशत्कोटिरुन्नतम् । आहत्य ब्रह्मांडमानं शतकोट्योजनं विदुः ॥६॥

इत्यादि ॥

clearly and severally in shastras Thus the extent of the Swetha varaha kalpa brahmamda is said to be one hundred crores of yojanas.

This statment is corroborated by another shastra viz., Anda kaustubha, thus,

The learned declare in shastras that the Swetha varaha kalpa Brahmanda is 50 crores yojanas in circumference and 50 crores in breadth and that summing them together it is one hundred crores yojanas in extent. Such is the general sense of this aphorism.

॥ सूत्रम् ३९ ॥

॥ अथोच्यतेशक्तिपञ्जरमस्मिन् ॥

॥ बो. वृ ॥

पूर्वसूत्रेण्डप्रमाणमुक्तमस्मिन्तथैवहि । सृष्टिलिंगप्रदर्शकशक्तिपञ्जरमुच्यते ॥१॥

चत्वारितत्प्रबोधकपदान्यस्मिन्यथाक्रमम् । तत्रादिमपदादानन्तर्यस्सन्निर्दिशितः ॥२॥

द्वितीयपदतत्त्वद्वित्किर्यार्थस्संप्रदर्शितः । तृतीयपदतत्त्वशक्तिपञ्जरसमुदीरितम् ॥३॥

सूत्रंचतुर्थपदतत्त्वसूचितंस्याद्यथाक्रमम् । पदार्थमेवमुक्तवास्यसामान्यार्थोऽधुनोच्यते ॥४॥

॥ सामान्यार्थः ॥

एतावत्पर्यन्तमस्मिन्शास्त्रब्रह्माण्डनिर्णयः । सप्रमाणंसंग्रहेणविविच्यपरिकीर्तितम् ॥५॥

APHORISM 35.

Thereupon will be dealt with the Shakti Panjara in this aphorism.

This is the aphorism.

THE COMMENTARY.

The extent of the Swethavarahakalpa brahmāṇḍa was determined in the previous aphorism. The Shakti Panjara exhibiting the marks of creation of the Universe will similarly be treated in this aphorism.

This aphorism consists of four words dealing with the Shakti Panjara. Of these the first word refers to the context viz., subsequent to the previous aphorism. The second word is the verb. The third word names the Shakti Panjara. The fourth word, in order, indicates the aphorism mentioned above. Having thus given the meanings of the words of the aphorism, its purport will now be given.

THE PURPORT OF THE APHORISM.

This shastra has so far depicted the process of creation of Swethavarahakalpa Brahmanḍa authentically and briefly. Now

अथेदानीमात्मकृतशक्तिपंजरमद्भुतम् । सिसृक्षताशक्तिमयंसृष्ट्यङ्कनप्रदर्शकम् ॥६॥
 क्रमात्संकीर्त्यतेसम्यक्सप्रमाणंयथाविधि । पश्चाद्विद्युज्जलेभ्यक्तपुरुषस्यचिदात्मनः ॥७॥
 सिसृक्षताशक्तिरूपवीर्यमेवययाक्रमम् । कल्पयद्ब्रह्मांडमेतच्छतकोट्योमनोज्ञतम् ॥८॥
 तदाकारंवर्तुलमित्युच्यतेकुक्कुटाण्डवत् । सृष्ट्यर्थजगतस्तस्मिन्सूक्ष्मशब्देनसंयुतम् ॥९॥
 विश्वाकाशंजगद्बीजंसंदेजगदीश्वरः । पश्चात्तद्वरेकालविपाकेनस्वभावतः ॥१०॥
 शब्दगर्भान्माविद्युत्प्रकाशस्तस्मजायत । तत्प्रकाशोन्तर्बहिश्चव्याप्यांडहेमवत्क्रमात् ॥११॥
 प्रकाशरूपमकरोदासमंतात्स्वशक्तिः । संग्राह्यपश्चादंडस्थप्रकाशंसर्वतोमुखम् ॥१२॥
 तदंडमध्येभगवान्सन्नियम्यैकरूपतः । यथाचित्रंलेखयितुंचित्रकारोयथाविधि ॥१३॥
 अत्यंतशुद्धंसुदृढमादौशास्त्रानुसारतः । पटमेकंकल्पयतिस्वसंकल्पानुतारतः ॥१४॥
 तयोपादाननिमित्तशक्तिभ्यामतिविस्तरात् । जगच्चित्रंलेखयितुंजगदीशोनिर्जनः ॥१५॥

the Shakti Panjara which points out the marks of the evolution of the Universe, which is in the form of Sisrukshata Shakti, which is wonderful and which is invented by Paramatma, will be described.

Thereupon in the said Vidyut jala or water in the form of electricity existing on the Avyakta Panjara it was the semen in the form of Sisrukshata shakti of Avyakta Purusha or unmanifest Being who is in the form of chit, that produced Swetha-varahakalpa brahmanda, one hundred crores of yojanas in height. The learned declare that the shape of this brahmanda is of the figure of an egg of a hen. For the sake of the creation of the Universe Parameswara mixed with that brahmanda, His Chittakasa which is the original seed of creation and which contains Sookshma shabda or subtle sound. Thereupon in due course of time a wonderful electric brilliance was naturally produced from out of the womb of the Sookshma shabda, present in that Chittakasa. This brilliance then by virtue of its power, pervaded all sides of the brahmanda both in and out and made it appear in the form of golden brilliance. Afterwards the Lord Almighty attracted the brilliance sparkling on all sides of the brahmanda and concentrated it at the centre of the

अदौसिसृक्षताशक्त्यांगुणशक्तीस्समंशतः । संयोज्यसृष्टिसंकल्पानुसारेणयथाक्रमम् ॥१६॥
तेजस्तिमिरसंयुक्तंनिर्ममेशक्तिपंजरम् । तस्मिन्सर्वजगत्सृष्टिर्लक्ष्मणासंप्रदर्श्यते ॥१७॥

॥ सूत्रम् ३६ ॥

॥ ध्वान्तसंयोगत्वात्पिण्डत्वंतस्य ॥

॥ बो. वृ ॥

तेजस्तिमिरसंयुक्तंजम्बूद्वीपमूत्रतः । उत्तवासिन्तत्प्रत्यभासःपिण्डत्वंकीर्त्यतेधुना ॥१॥
पदानित्रीणिमूत्रेस्मिन्निर्णयानियथाक्रमम् । तत्रादिमपदादव्यक्तांशकारोनिर्दिशतः ॥२॥

brahmananda. Then just as an artist prepares a very clean, strong cloth, (paper, glass or the like) with a view to delineate the drawing on it as per his desire, so also the Lord of the universe who is free from Maya with a view to delineate the picture of the universe as per His volition, by means of His Upadana and Nimitta shaktis, first prepared Shakti Panjara consisting of light and darkness by mixing equal portions of Satwa, Raja and Tama shaktis with Sisrukshata shakti. In this Shakti Panjara the creation of the entire universe is well shown by marks.

Note—(1) Upadana here means Maya shakti.

(2) Nimitta here means Ikshana shakti.

APHORISM 36.

By the contact of darkness the brilliance at the centre of the Shakti Panjara got the shape of a Pinda or a human body. This is the aphorism.

THE COMMENTARY.

Having described the Shakti Panjara composed of light and darkness by the previous aphorism now by this aphorism how the said light got the shape of a Pinda or a human body will be dealt with.

तत्प्रकाशस्यपिंडत्वंद्वितीयपदतस्मृतम् । पंजरस्यन्योतिरुक्तंतृतीयपदतस्तथा ॥३॥
पदार्थमेवमुक्त्वास्यसूत्रस्यविविक्तक्रमात् । अथेदानींसंग्रहेणमामान्यार्थो निरूप्यते ॥४॥

॥ सामान्यार्थः ॥

शक्तिपंजरमध्यस्थकेंद्रशक्त्यपकर्षणात् । क्रमात्तत्रत्यांधकारस्तत्केंद्रस्यद्युतेस्त्वनः ॥५॥
अधस्तादधर्षभागंसमावृणोत्स्यीयशक्तिः । आत्मनस्सृष्टिसंकल्पानुसारेणैवकेवलम् ॥६॥
पश्चात्तदन्तरालस्थप्रकाशोऽध्वान्तयोगतः । शिरःपाण्यादिभिर्युक्तपिंडाकारंप्रपेदिरे ॥७॥
तत्पिंडमेवप्रथमशरीरीतितथैवहि । हिरण्यगर्भइतिचविधाताब्रह्मइत्यपि ॥८॥
चतुर्मुखस्सृष्टिकर्तास्वयंभूरितिचक्रमात् । प्रवदन्तिविशेषेणशास्त्रेषुब्रह्मवादिनः ॥९॥
इतिपंजरमध्यस्थप्रकाशार्धस्यसूत्रतः । पिंडत्वंध्वान्तसंयोगाद्भूदितिनिर्णिगतम् ॥१०॥

This aphorism consists of three words. The darkness of *Avyakta* is referred to by the first word. By the second word is stated the shape of a *Pinda* or a human body assumed by the brilliance present in the *Shakti Panjara*. Similarly the brilliance present in the *Shakti panjara* is mentioned by the third word. Having given as usual the meaning of the words in the aphorism, now the general sense of the aphorism will be given briefly.

THE GENERAL SENSE.

By the attraction of the power at the centre of the *Shakti Panjara*, the darkness, present in the *shakti kendra*, of its own accord and by its own force, pervaded the lower half of the said brilliance gradually. Thereupon in accordance with the *srushti sankalpa* or the Cosmic Ideation of *Atma*, the splendour existing within that *Panjara*, by the contact of darkness got the shape of a human body—with a head, limbs etc. It is this human form that is described by the knowers of *Brahman* as the one who had the first body, *Hiranya garbha*, *Vidhata*, *Brahma*, *Chaturmukha* or the four-faced, *Srushti Karta* or the Agent of creation, *Swayambhu* or self-created and so on in the *Shastras*. In this way this aphorism proves that the splendour existing at the centre of the *Shakti Panjara*, by the contact of darkness, got the shape of a *Pinda* or a human body.

॥ तदुक्तं स्रष्टिविलासे ॥

शक्तिपंजरमध्यस्थप्रकाशस्य यथाक्रमम् । तत्रत्यध्वांतसंयोगादर्धभागस्त्वभावतः ॥११॥
तदधस्तात्पिण्डरूपमभूदीशाज्ञयाक्रमात् ॥ इति ॥

॥ सूत्रम् ३७ ॥

॥ तत्त्वधस्यात्पिण्डभेदनं कालविपाकान्नारि-
केलवत् ॥

॥ बो. वृ. ॥

पूर्वसूत्रे प्रकाशस्य पिण्डत्वं समुदीरितम् । अथेदानीं कीर्त्यते स्मिन्ब्रह्माण्डस्य विभेदनम् ॥१॥
तत्रादिमपदात्सम्यक्पिण्डशक्तिर्निरूपिता । द्वितीयपदतस्तद्वद्विण्डभेदनमीरितम् ॥२॥
तृतीयपदतः कालविपाकस्सन्निर्दिष्टः । तथाचतुर्थपदतोदृष्टान्तस्संप्रकीर्तितः ॥३॥
पदार्थमेवमुक्तत्वात्संग्रहेण यथामति । अथेदानीं समासेन सामान्यार्थः प्रचक्षते ॥४॥

In this connection Srashti Vilasa observes as follows:—

By the gradual contact of darkness present in the Shakti Panjara, the lower half of the splendour existing in that Shakti Panjara, naturally got the shape of a Pinda or human body, by the order of the Lord of the Universe.

APHORISM 37.

In due course, the Swethavarahakalpa Brahmananda on account of the force of the aforesaid Pinda or the human body, was split into two parts just like a cocoanut. This is the aphorism.

THE COMMENTARY.

Having established in the previous aphorism how the splendour at the centre of the shakti panjara assumed the form of a human body, now, in this aphorism the division of the Swethavarahakalpa Brahmananda will be dealt with.

॥ सामान्यार्थः ॥

अण्डस्योत्पत्तिमारभ्यपुनस्तच्छेदनावधि । देवमानानुसारेण संस्तरइतीरितः	॥९॥
स एव कालविपाकादित्यत्र कालशब्दतः । उक्तं तदं दमध्यस्थर्षिडस्यापितथैव हि	॥१॥
विपाकशब्दात्प्रोक्तस्यात्परिपांको भिवृद्धये । तथैव वर्तुलाकारं नारिकेलं कलं क्रमात्	॥७॥
ताडनाद्विद्यते सम्यक् समभागं यथा द्विधा । तथैव श्वेतवाराहकल्पब्रह्मांडमप्यथ	॥८॥
तर्पिण्डशक्त्या भिवृद्धिं गतया कालमानतः । विभाजितमभूद्देवामध्यभागात्समं यथा	॥२॥

The first word of this aphorism refers to the force of the said human form. Similarly the division of Swethavarahakalpa Brahmanda is mentioned by the second word. The requisite period of time for the purpose is fixed by the third word. In the same way the fourth word indicates an example. Having explained the meaning of the words of the aphorism to the best of our knowledge we shall now try to give out its general sense thus.

THE GENERAL SENSE.

From the time of the origin of the Swethavarahakalpa Brahmanda till the time of its splitting into two parts, the time that lapsed is said to be a year according to the calculation of time of the Devas. So the word Kala occurring in the expression "Kala Vipakath" points out this period of one Deva year. Similarly the word "Vipakath" mentions a hot power that emanated for the growth of the human body present at the centre of that Brahmanda. The Swethavarahakalpa Brahmanda, by the power of the said human body, at the end of the period required for its ripening, got split into two equal parts just like a round cocoanut gets split into two equal pieces by cracking it carefully.

॥ सूत्रम् ॥

॥ ततस्तच्छक्त्यातदूर्ध्वाधिस्तत्कपालयोः प्रतिष्ठा ॥

॥ वो. वृ. ॥

ब्रह्मांडभेदनपूर्वसूत्रेशक्त्यानिरूपितम् । अस्मिन्प्रतिष्ठास्थानं चकीर्त्यते तत्कपालयोः ॥१॥
 एतत्प्रबोधकपदान्यस्मिन्वचययाक्रमम् । पदच्छेदनतस्तन्यङ्गिर्निर्णयानिस्फुटं यथा ॥२॥
 आनन्तर्यार्थमुक्तं स्यात्तत्रादिमपदात्तया । अंडस्य चीजशक्तिर्यासाद्वितीयपदात्स्मृता ॥३॥
 अंडस्योर्ध्वाधः प्रदेशौ तृतीयपदतस्मृता । चतुर्थपदतोंडस्य कपालद्वयमीरितम् ॥४॥
 तथैव पंचमपदात्प्रतिष्ठोक्ता कपालयोः । पदार्थमेव मुक्तास्य सामान्यार्थोऽचकीर्त्यते ॥५॥

APHORISM 38.

Then by that force the two pieces (of the Swethavarahakalpa Brahmanda) were established at the upper and the lower directions of the Brahmanda. This is the aphorism.

THE COMMENTARY.

The previous aphorism dealt with the splitting up of the Brahmanda formed by Sisrukshata Shakti which is in the form of Avyakta Brahmanda present in that Brahmanda. The place where the two pieces were located will be determined in this aphorism.

This aphorism consists of five words dealing with the establishment (of the said pieces.) The first of these words refers to the time subsequent to the action mentioned in the previous aphorism: The Srushti Beeja shakti or the power of the seed of creation has been referred to by the second word. The third word names the upper and the lower directions of the Brahmanda. The two pieces into which the Brahmanda was split have been pointed out by the fourth word. The fifth word indicates the locality where the two pieces were established. Having thus given the meaning of the words of the aphorism, its purport will now be given thus.—

॥ सामान्यार्थः ॥

पश्चात्पूर्वोक्तब्रह्मांडस्थितशक्त्याययाक्रमम् । श्वेतवाराहकल्पस्यब्रह्मांडोर्ध्वप्रदेशके ॥६॥
तथैवाधःप्रदेशेचतुर्द्व्यंशकालयोः । कृतं प्रतिष्ठासृष्ट्यर्थं कर्तुं तच्छक्तिपंजरम् ॥७॥

THE PURPORT OF THE APHORISM.

The two pieces of the Brahmanda into which it was split were thereafter stationed at the upper and the lower directions of the Brahmanda, by Sisrukshata shakti which is in the form of beeja or seed of Avyakta Brahma present in the said Brahmanda. This is the purport of the aphorism.

॥ सूत्रम् ३९ ॥

॥ तदाकर्षणात्तमप्रकाशयोर्द्वैविध्यमव्यक्तस्य ॥

• ॥ बो वृ ॥

पूर्वसूत्रेण्डकपालप्रतिष्ठासन्निरूपिता । अव्यक्तध्वान्तप्रकाशविभागोऽस्मिन्प्रचक्षते ॥ १ ॥

सूत्रेपदानि चत्वारि निर्णिता नियथाक्रमम् । तत्रादिमपदात्तत्कपालाकर्षणमीरितम् ॥ २ ॥

अव्यक्ततमप्रकाशौ द्वितीयपदतस्मृतौ । पश्चात्तृतीयपदतस्तद्विभागो निदर्शितः ॥ ३ ॥

तद्वच्चतुर्थपदतोऽव्यक्तशक्तिर्निरूपिता । एवंपदार्थमुक्तत्वं स्वसामान्यार्थो निरूप्यते ॥ ४ ॥

॥ सामान्यार्थः ॥

कपालद्वयमध्यस्थशक्त्याकर्षणतः क्रमात् । पूर्वोक्ताव्यक्तमंडलप्रकाशध्वान्तयोर्द्विधा ॥ ५ ॥

APHORISM 39.

By its attraction the Avyakta got itself split up into two viz darkness and light.

THE COMMENTARY.

The fixture or location of the Anda Kapalas or the two halves of the brahmanda was stated in the previous aphorism. The two states, darkness and light into which the Avyakta was split up, will be explained in this aphorism.

There are four words in this aphorism. The first word refers to the attraction of the two halves of the Brahmanda. The second word names the darkness and light of Avyakta. Then the third word mentions the process of their division or separation. Similarly the shakti of the Avyakta globe is pointed out by the fourth word. Having thus given the meanings of the words of the aphorism, next its general sense will be explained.

THE GENERAL SENSE OF THE APHORISM.

By the attraction of the two forces present in the centres of the two kapalas or halves of the brahmanda the darkness and light in the womb of Avyakta broke open the womb and came out just as the young ones of a crab split up and come out of the

विभागोभूत्स्वभावेनमाधिमार्गमवत्कमाव । पश्चात्तौययुतुस्तत्कपालस्थानंप्रतिस्वतः ॥ ६ ॥

॥ तदुक्तं ब्रह्माण्डसारे ॥

कपालद्वयमध्यस्थाव्यक्तमंडलसंस्थितौ । ध्वान्तप्रकाशौवेगेनतच्छक्त्याकर्षणात्स्वतः ॥ ८ ॥

द्विधाभूत्वातयोः पश्चादूर्ध्वीशोवेगतस्वयम् । ऊर्ध्वस्थितांडकपालमध्यकेन्द्रमवापहि ॥ ७ ॥

अधस्स्थिताण्डकपालमध्यकेन्द्रंतयैवच । द्वितीयांशोगमत्पश्चात्तत्रस्वैर्यमवापतुः ॥ ९ ॥

॥ सूत्रम् ४० ॥

॥ तदुभयसंघर्षणात्कश्यपज्योतिः ॥

॥ बो वृ ॥

तमप्रकाशयोर्भेदः पूर्वसूत्रेनिरूपितः । अस्मिन्कश्यपसूर्यस्यन्योतिमंडलमुच्यते ॥ १ ॥

womb of a (mother) crab. Thereupon the darkness and light got into the centres of the lower and the upper halves of the Brahmanda respectively.

The same thing is stated in Brahmanandasara also thus—

The darkness and light present in the Avyakta globe in the middle of the two halves of the Brahmananda on account of the attraction of the forces of the centres of those halves, got themselves divided into two. Then the light at the upper side got into the centre of the upper half of the Brahmanda, while the darkness got into the centre of the lower half. The darkness and the light which got into these centres of the lower and the upper halves of the Brahmananda stuck fast to those places. Thus the work continues.

This is the general sense of the thirty-ninth aphorism.

APHORISM 40.

By the friction of these two, Kasyapa Jyoti or a luminous globe namely Kasyapa came into existence.

The COMMENTARY.

The scission or the division into two of the Avyakta globe was dealt with in the previous aphorism and the origin of the solar globe called Kasyapa will be traced in this aphorism.

पदद्वयं हि मूवेस्मिन्निर्गितं संप्रदायतः । तत्रादिमपदाच्छक्तिंसंघर्षणः प्रदर्शितः ॥ २ ॥
 कश्यपेत्पत्तिरुक्तास्याद्वितीयपदतस्तथा । पदार्थमेवमुक्त्वास्यसामान्यार्थोऽधुनोच्यते ॥ ३ ॥

ब

॥ सामान्यार्थः ॥

कपालद्वयशक्त्योरव्यक्तशक्त्योः परस्परम् । अत्यन्तसंघर्षणेन बृहदाकारतः कमात् ॥ ४ ॥
 सृष्टेस्समष्टिवीजशक्तिरूपमचञ्चलम् । बहिरुष्णतथैवान्तर्दशीतलंसर्वतो मुखम् ॥ ५ ॥
 नानाविचित्रकिरणैस्संयुतसृष्टिकारकम् । समुद्भूतं स्वभावेन कश्यपज्योतिमण्डलम् ॥ ६ ॥

॥ ब्रह्माण्डसारेपि ॥

अव्यक्तागं नोमशक्तीविभज्य जगदीश्वरः । सृष्ट्यर्थजगतस्तत्कपालयोरुभयोरपि ॥ ८ ॥
 अधः कपालेधकारशक्तिमूर्ध्वकपालके । कमात्प्रकाशशक्तिचसन्देस्वीयते जसा ॥ ९ ॥

There are two words in this aphorism. The first word refers to the friction of the two forces of the Avyakta globe and of the two halves of the Brahmanda. The second word names the brilliance of the Kasyapa globe.

Having thus given the literal meanings of the words of the aphorism we shall proceed to examine its general sense.

THE GENERAL SENSE OF THE APHORISM.

By the friction of the forces of the two halves of the Brahmanda and those of the darkness and light of the Avyakta globe, naturally emanated a glorious globe of brilliance namely Kasyapa which is infinitely large in size, which is in the form of an aggregate seed of creation, which is motionless, which is hot outside and cold inside, which has faces on all sides, which is the storage of and radiates many wonderful beams or rays and which conducts the propagation of the universe.

The same thing is stated in Brahmandasara also thus—

The Lord of the Universe for the proper conduct of creation separated the Agni and Soma powers, present in the Avyakta globe and by his own glory fixed the darkness in the lower half and the light in the upper half of the Brahmanda. Thereupon the forces of the halves of the Brahmanda and of Agni and Soma

पश्चात्तदुभयशक्त्योस्संघर्षणात्परस्परम् । स्वतःप्राविरभूद्व्यंकश्यपज्योतिमण्डलम् ॥ ९ ॥

॥ इत्यादि ॥

॥ शौनकमूत्रेपि ॥

अथातः कश्यपोत्पत्तिं व्याख्यास्यामः कपालोव्यक्तशक्त्योस्संघर्षणादव्यक्त पुरुष-
स्यान्तर्ज्योतिः कश्यपवर्णस्थ सृष्टिशक्तीनां वसुरुद्रोड्वञ्च्यश सम्मेलना न्मण्डलंकृत्वा
तदुपाधिना कश्यपत्वंप्राप्य प्राविरभूत् ॥

॥ इत्यादि ॥

powers came into contact and thereby emanated the globe of Kasyapa of its own accord with extraordinary brilliance.

Shounaka sutra or aphorism corroborates the same, as follows:—

Let us then deal with the origin of the Sun, namely Kasyapa thus. The brilliance of Paramatman or the Avyakta being on account of the friction of the forces of the two halves of the Brahmanda and those of Avyakta, caused the powers of letters from A to Ksha which are the wombs of creation, to combine together. The powers entered into this combination are as under—

Out of the seven crores of powers present in each letter of the (Sanskrit) alphabet 8 shaktis of the letter Ka, 11 shaktis of the letter Sha, 27 shaktis of the letter Ya and 4 shaktis of the letter Pa.

By the combination of these letter-powers, a globe was formed and by means of this upadhi the said inner brilliance manifested as the globe of the sun, Kasyapa by name.

This is the purport of the aphorism by Shounaka.
Thus ends the 40th aphorism.

॥ सूत्रम् ४१ ॥

॥ एवमव्यक्त ध्वान्ताधःकपालशक्तयोस्सं-
घर्षणात्कूर्मपीठम् ॥.

॥ ओ वृ ॥

पूर्वसूत्रेकश्यपस्योत्पत्तिमुक्त्वायथाक्रमम् । कूर्मपीठोत्पत्तिरस्मिन्संग्रहेणप्रकीर्त्यते ॥ १ ॥
सूत्रेपदानिचत्वारिनिर्णितानियथाक्रमम् । तत्रादिमपदात्पूर्वक्रमस्सम्यक्प्रदर्शितः ॥ २ ॥
ध्वान्ताधःकपालशक्तीद्वितीयपदतस्मृते । तयोस्संघर्षणःपश्चात्तृतीयपदतस्मृते ॥ ३ ॥
चतुर्थपदतः कूर्मपीठमुक्तंयथाक्रमम् । पदार्थमेवमुक्त्वास्यसामान्यार्थो निरूप्यते ॥ ४ ॥

॥ सामान्यार्थः ॥

अधःकपालाव्यक्तान्धकारशक्त्योःपरस्परम् । संघर्षणात्समुद्भूतंकूर्मपीठमहत्तरम् ॥ ५ ॥

APHORISM 41.

Similarly by the friction of the two shaktis, one of the darkness of Avyakta and the other of the lower half of Brahmanda, Koorma Peetha came into existence.

THE COMMENTARY.

The emanation of the solar globe of Kasyapa was dealt with in the previous aphorism and the emanation of Koorma Peetha will be described in this aphorism.

This aphorism consists of four words. The first word expresses the order of the process of evolution. The second word names the two shaktis viz., the shakti of the darkness of the Avyakta and that of the lower half of Brahmanda. The third word mentions the friction of these two shaktis. The fourth word names Koorma Peetha. This is the meaning of the words of the aphorism, while its general sense is as follows.

THE GENERAL SENSE OF THE APHORISM..

By the mutual friction of the shakti of the lower half of Brahmanda and that of the darkness of Avyakta in it, the glorious Koorma Peetha came into existence.

॥ इति सामान्यार्थः ॥

॥ सूत्रम् ४२ ॥

॥ तदुभय शक्तिसंघर्षणाद्वातस्कन्धः ॥

॥ बो वृ ॥

कूर्मपीठोत्पत्तिमुक्त्वा पूर्वसूत्रेयथाविधि । वातस्कन्धोत्पत्तिरस्मिन्संग्रहेण निरूप्यते ॥ १ ॥

पदच्छेदनतस्सूत्रे निर्णितं स्यात्पदद्वयम् । तच्छक्तिद्वयसंयोगस्तत्रादिमपदात्स्मृतः ॥ २ ॥

वातस्कन्धोत्पत्तिरपि द्वितीयपदतस्समृता । पदार्थमेवमुक्त्वास्य सामान्यार्थो धुनोच्यते ॥ ३ ॥

॥ सामान्यार्थः ॥

पूर्वोक्तकश्यपकूर्मपीठशक्त्योः परस्परम् । संयोगतोऽखिलजगत्सृष्टिसंधारणात्मकः ॥ ४ ॥

कूर्मकश्यपयोर्मध्ये वातस्कन्धस्समुद्भवौ । वातस्कन्धोत्पत्तिरेवं सूत्रेऽस्मिन्संप्रचक्षिता ॥ ५ ॥

APHORISM 42.

By the friction of those two shaktis Vata-skandha came into existence.

THE COMMENTARY.

Having dealt with the emanation of Koorma Peetha in the previous aphorism, the author describes the emanation of Vata-skandha in this aphorism.

This aphorism resolves itself into two parts. The first part refers to the two shaktis—one of Kasyapa and the other of Koorma Peetha. The second part makes mention of Vata-skandha emanating therefrom.

Having given the significance of the two parts of the aphorism, we shall now proceed to examine its general sense.

THE GENERAL SENSE OF THE APHORISM.

By the friction of the said two shaktis—one of Kasyapa and the other of Koorma Peetha, Vata-skandha which bears the entire created phenomena of the universe, between Kasyapa globe and Koorma Peetha. In this way the process of emanation of Vata-skandha has been described in this aphorism.

॥ सूत्रम् ४३ ॥

॥ कश्यपवातस्कन्धशक्त्योस्संयोगात्सृष्टिग- र्भोत्पत्तिस्तददितीरिति ॥

॥ बो वृ ॥

वातस्कन्धोत्पत्तिमुक्त्वा पूर्वसूत्रेयथाक्रमम् । इदानीमदिति शक्त्युत्पत्तिरस्मिन्निधीयते ॥ १ ॥
 पदानिषण्णिर्णितानिसूत्रेस्मिन्संप्रदायतः । तत्रकश्यपवातस्कन्धशक्ती आदिमात्सृष्टे ॥ २ ॥
 द्वितीयपदतत्संयोगस्सम्यक्प्रदर्शितः । तृतीयपदतस्सृष्टिगर्भोत्पत्तिर्निरूपिता ॥ ३ ॥
 चतुर्थपदतोत्पत्तिरेव सम्यङ्निदर्शिता । तथैवपंचमपदानामतस्यैवकीर्तितम् ॥ ४ ॥
 तथैवषष्ठमपदानिश्चयार्थो निरूपितः । पदानामेवमुक्त्यर्थसामान्यार्थोऽख्यकीर्त्यते ॥ ५ ॥

॥ सामान्यार्थः ॥

पूर्वोक्त्वा तस्कन्धकश्यपशक्त्योः परस्परम् । संयोगात्सृष्टिगर्भाख्याकाचिच्छक्तिरजायत ॥ ६ ॥

APHORISM 43.

By the combination of the shaktis of Kasyapa and Vata-skandha another shakti, Srushti Garbha by name came into existence, which is also known as Aditi.

THE COMMENTARY.

The previous aphorism explained the process of emanation of Vata-skandha, while this aphorism describes how Aditi shakti comes into existence. There are six words in this aphorism. The first word refers to the shaktis of Kasyapa and of Vata-skandha. The second word mentions the combination of those two shaktis. The third word names the emanation of the shakti of Srushti Garbha. The fourth word is a pronoun standing for the preceding noun. The fifth word gives another name, Aditi to that shakti. The sixth word confirms that name. This is the significance of the words of the aphorism while its purport runs as follows.

THE PURPORT OF THE APHORISM.

By the combination of the shaktis of Kasyapa and Vata-skandha mentioned above, a certain shakti by name Srushti

सैवादितिरितिप्रोक्ताशास्त्रेषुज्ञानवित्तमैः । इतिसंग्रहतस्सामान्यार्थोऽख्यप्रतिपादितः ॥ ८ ॥

॥ सूत्रम् ४४ ॥

॥ गर्भास्सप्त ॥

॥ बो वृ ॥

पूर्वसूत्रेशक्तिगर्भाशक्तिमुक्त्वायथाक्रमम् । तद्गर्भानां प्रभेदोऽस्मिन्संग्रहेणप्रचक्षते ॥ १ ॥

पञ्चद्वयं हि सूत्रेऽस्मिन्पदच्छेदनतस्समृतम् । तत्रादिमपदाद्गर्भास्सामान्येनप्रदर्शिताः ॥ २ ॥

द्वितीयपदतस्तासांसंख्यासंन्यक्तप्रदर्शिता । एवमुक्त्वापदार्थोऽख्यसामान्यार्थोऽधुनोच्यते ॥ ३ ॥

॥ सामान्यार्थः ॥

कालविद्युद्भूतऋतुशीतोष्णकिरणादिति । गर्भास्सप्तइतिप्रोक्ताअदितेस्सृष्टिहेतुकाः ॥ ४ ॥

॥ सप्तगर्भलक्षणमुक्तं गर्भतत्त्वप्रकाशिकायाम् ॥

भूतविद्युत्कालऋतुशीतोष्णकिरणाः क्रमात् । एते सप्तादितेर्गर्भा इति प्रोक्ता महर्षिभिः ॥ ६ ॥

Garbha came into existence This shakti is described as Aditi in the shastras by the learned. This is the purport of this aphorism.

APHORISM 44.

Garbhas (are) seven.

THE COMMENTARY.

In the previous aphorism, Shakti Garbha shakti was dealt with. The varieties of Garbhas will be briefly described in this aphorism.

There are two words in this aphorism. The several garbhas are mentioned by the first word. The number of those Garbhas is given by the second word. This is what the words of the aphorism signify while its general sense is as follows.

THE GENERAL SENSE OF THE APHORISM.

Shastras declare that the said Aditi shakti contains seven garbhas which are the source of creation of the entire universe.

Those Garbhas are:—

1. Kala Garbha, 2. Vidyut Garbha, 3. Bhuta Garbha,
4. Ritu Garbha, 5. Sheeta Garbha, 6. Ushna Garbha,
7. Kirana Garbha.

॥ सूत्रम् ४९ ॥

॥ भूतकिरणाः पञ्चतत्संयोगात् ॥

॥ बो वृ ॥

उक्त्वादितेस्सप्तगर्भान्पूर्वसूत्रेयथाक्रमम् । अथेदानींपञ्चभूतोत्पत्तिरस्मिन्प्रवक्षते ॥१॥

पदानित्रीणिसूत्रेस्मिन्निर्णिटानियथाविधि । तत्रादिमपदाद्भूतकिरणास्संप्रदर्शिताः ॥२॥

द्वितीयपदतस्तद्वत्तत्संख्यासन्निरूपिता । कश्यपगर्भसंयोगस्तृतीयपदतस्मृतः ॥३॥

पदानामेवमुक्तवार्थस्सूत्रस्यास्ययथामति । अथेदानींसंग्रहेणसामान्यार्थो निरूप्यते ॥४॥

॥ सामान्यार्थः ॥

कश्यपस्यादितेर्भूतगर्भशक्तेश्चकेवलम् । परस्परसमांयोगादाकाशादिक्रमेणहि ॥५॥

तद्गर्भतःपञ्चभूतकिरणास्संभववतुः । एवंसामान्यार्थमुक्त्वाविशेषार्थोऽप्युक्तः ॥६॥

APHORISM 45

By the combination of the Shaktis of Kasyapa and the Bhutagarbha of Aditi, the five rays of Bhutas or elements came into existence.

THE COMMENTARY

The origin of the seven garbhas of Aditi was traced in the previous aphorism. Now the origin of the five Bhutas or elements will be described in this aphorism.

There are three words in this aphorism. The first word mentions the rays of Bhutas or elements. The second word gives their number namely five. The third word points out their origin viz., the combination of Kasyapa and the Bhutagarbha of Aditi. This is the meaning of the words of the aphorism while its general sense is as follows:—

THE GENERAL SENSE OF THE APHORISM.

By the mutual contact of Kasyapa and the Bhutagarbha of Aditi, the five rays of Bhutas or elements in the order of Akasa came into existence from out of the latter viz., the Bhutagarbha of Aditi. This is the general sense of the aphorism and the explanatory meaning follows.

॥ विशेषार्थः ॥

॥ तदुक्तं सृष्टिविलासे ॥

सोकामयत बहुस्यां प्रजायेयेति वाक्यतः । आत्मनस्सृष्टिसंकल्पशक्तिप्राहसनातनी ॥७॥
 सैवमूलप्रकृतिरित्यात्मनोपाभिरित्यपि । संकीर्तिताविशेषेण शास्त्रेषु ज्ञानवित्तमैः ॥८॥
 स ईक्षितेति वाक्येनेक्षणाशक्तिपरात्मनः । तथैव कृपया प्राह श्रुतिर्लोकहितैषिणी ॥ ॥९॥
 यदीक्षणाशक्तिरिति श्रुतिवाक्यादुदीरितम् । तदात्मप्रकाशइति प्रवदन्ति मनीषिणः ॥१०॥
 यत्सृष्टिसंकल्पशक्तिरित्युक्तं श्रुतिवाक्यतः । तच्छायातम इत्याहुश्चित्प्रकाशस्य केवलम् ॥११॥
 पश्चात्तदीक्षणाशक्त्या प्रकृतिः क्षोभिता सति । समष्टिव्यष्टिभेदेन सृष्ट्यर्थमभवद्विधा ॥१२॥
 तयोस्समष्टिशक्तिर्योगुणसाम्यात्परात्मनः । प्रतिबिम्बसमासाद्य तस्मिन्नेव चिदात्मनि ॥१३॥
 असंपर्कात्स्वयंपश्चात्पद्मपत्रमिवांभसि । अत्रिनाभावतो नित्यमवर्ततस्वभावतः ॥१४॥

THE EXPLANATORY MEANING.

The creation of bhootas or elements as expounded in Srushti Vilasa is here explained, thus.

The Eternal Sruti by its sentence, 'The Parabrahman ideated that He should expand and appear as various phenomena of the Universe' speaks of the Shakti of His volition for creation. It is this Shakti of volition of Paramatman that is called Mulaprakriti and Upadhi to Atman by the learned in Shastras. Again the benevolent Shruti by its passage, 'He saw, etc.' points out Brahman's Shakti of seeing or thinking. That which is spoken of by the Sruti as Ikshana Shakti or the power of seeing or contemplating, is said to be the brilliance or glory of Atman, by the learned. On the other hand that which is styled as the Power of volition for creation by the Shruti is termed darkness by the wise. Thereupon the Prakriti Shakti getting agitated by the power of seeing or contemplating, assumed the two forms namely Samashti or macrocosmic power and Vyashti or microcosmic power, for the propagation of the Universe. Of these two the aggregate or macrocosmic power naturally remained in Paramatman eternally, inseparably and unattached just as the lotus-leaf in water. Similarly, that which is called

याव्यष्टिशक्तिरित्युक्ताप्रकृतेऽशास्त्रतस्तथा । सैवतत्प्रतिबिम्बेनसंयुक्ताञ्जांतरूपिणी ॥१५॥
 गुणवैशम्यतः पश्चात्त्रिधाभूत्वायथाकथम् । समष्टिशक्तिवत्स्मिन्नविनाभावतस्त्वयम् ॥१६॥
 अवर्ततस्वभावेन सर्वदा परमात्मनि । ततस्त्वसृष्टिसंकल्पशक्तिमाहृत्यवेगतः ॥१७॥
 संदेहेऽक्षणाशक्त्यां जगत्सृष्ट्यर्थमीश्वरः । पश्चात्तत्सृष्टिसंकल्पशक्तिस्त्वगुणभेदतः ॥१८॥
 स्वान्तर्गतेऽक्षणाशक्तिसमावृणोति त्रिधा क्रमात् । एतदावरणमेव मुनयो ब्रह्मवादिनः ॥१९॥
 त्रयीमण्डलमित्याहुरादित्य इति च क्रमात् । पश्चात्तदक्षणाशक्तिः त्रित्प्रकाशस्वरूपिणी ॥२०॥
 हिरण्यगर्भत्वमभजदादित्योपाधितस्त्वतः । हिरण्यगर्भइतियः पूर्वमेव प्रकीर्तितः ॥२१॥
 स एवात्र विशेषेण विशदीकृत्य वर्णितः । एष एव विशेषेण जगत्सृष्टिर्विचिन्तयन् ॥२२॥
 स्वप्रकाशांशो न पश्चात्कश्यपज्योतिर्मण्डलम् । जगत्सृष्ट्यर्थमसृजत्स्वयमेव विभुः कत्रमात् ॥२३॥
 तथैव स्वोपाधिभूतादित्यशक्तिर्महौजसम् । समाकृत्यादिति शक्तिस्त्वरूपेण विनिर्मिते ॥२४॥
 पश्चात्तददिति शक्तिः कश्यपाकर्षणात्स्वयम् । तमेवावृत्य वेगेन सप्तगर्भान् प्रपेदिरे ॥२५॥

Vyashti Shakti in Shastras and which is dark in nature, combining with the image of Paramatman got split up into three divisions on account of the unequal parts of Satwa, Raja and Tama Gunas and remained naturally and inseparably in Paramatman just like the Samashti Shakti. For the sake of the propagation of the Universe thereupon Parameswara attracted His power of volition for creation quickly and mixed it with the power of seeing or contemplating. Then the Srushti Sankalpa Shakti assuming three parts on account of its three gunas, gradually enveloped the Ikshana Shakti existing within it. It is this envelope or orb that seekers after Brahman call as Thrayee Mandala or the orb of Thrayee and Aditya Mandala, or the orb of Aditya. Thereupon the Ikshana Shakti of Parameswara which is in the form of Chit assumed the form of Hiranya Garbha on account of the Upadhi of Aditya Mandala. Mention has been made of Hiranya Garbha at the beginning of this shastra and it is to be noted here that the same Hiranya Garbha is delineated here in rather a vivid manner. Then this Hiranya Garbha, the Lord of Creation created the globe of Kasyapa from out of a fraction of His own brilliance, for the sake of propagation of the Universe. Again He created Aditi from the Shakti

तत्सप्तगर्भकश्यपशक्त्योस्संयोगतस्स्वतः । पंचभूतादिक्रमेण जगत्सृष्टिर्भविष्यति ॥२६॥
इत्यादि ॥

॥ पंचभूतोत्पत्तिरुक्तं तत्रैव ॥

कश्यपस्य मयूखानां भूतगर्भस्य ज्ञादितेः । अन्योन्यसंबर्षणेन सूक्ष्मशब्दसमन्वितः ॥२७॥
अक्काशकिरणोजातशक्तिर्भिदशभिर्भुतः । तयोः कश्यपशक्त्यंश आकाशइतिकीर्तितः ॥२८॥
सोवकाशइति प्रोक्तस्सृष्ट्यधिष्ठानमित्यपि । तथैवादिति शक्त्यंशशब्दइत्यभिधीयते ॥२९॥
स एवेक्षणसंकल्पशक्तिभ्यामात्मनः पुनः । संचोदितो नेककोटिब्रह्माण्डाकारमाययौ ॥३०॥
इदमेव विशेषेण श्रुतिस्मृत्यादिषु क्रमात् । ब्रह्मणो विवृतरूपमिति प्राहुर्मनीषिणः ॥३१॥
तच्छब्दाकाशसंयोगाच्छब्दस्पर्शात्मको निलः । संजातो भूतत्रयोदशशक्तिभिर्मिळितः क्रमात् ॥
तच्छब्दस्पर्शसंयोगाददृशक्तिसमन्वितः । क्रमाच्छब्दस्पर्शरूपात्मको ग्निसमजायत ॥३२॥

of Aditya who is extraordinarily splendid and who is Upadhi to Him. The Aditi Shakti then being attracted by Kasyapa enveloped him and bore the seven creative garbhas. By the combination of the seven garbhas of Aditi and of Kasyapa, the creation of Universe in the order of Pancha Bhutas or the five elements naturally takes place.

The origin of the five elements is described in the said *Srushti vilasa* as follows.—

It has already been observed [that creation takes place commencing with the five elements. These elements are, Akasa, Vayu i. e., air, Agni i. e. fire, Jala i. e., water and Pruthivi i. e., earth. Shastras proclaim that these five elements are the five beams of the solar globe of Kasyapa. The origin of these five beams is this.

By the friction of the powers of the rays of Kasyapa solar globe and of Bhutagarbha of Aditi, the Bhuta Kirana of Akasa, which is very subtle in nature, which is coupled with sound and which consists of the ten characteristic powers, came into existence. Of these two powers i. e. power of the rays of the solar globe of Kasyapa and that of Aditigarbha, the power of Kasyapa is known as Akasa. This Akasa is described as the vacant space or the power that is the support of all creative work. On the other hand, the part of Aditi shakti

अग्नेश्शब्दस्पर्शरूपशक्तिसंघर्षणात्ततः । दृश्यादृश्यस्वतोमेव्यशक्तिभिर्दशभिर्भुतः ॥२४॥
 आपोमवद्रूपरसशब्दस्पर्शात्मकः क्रमात् । शब्दस्पर्शरूपरसशक्तिसंघर्षणप्रदपाम् ॥२५॥
 शब्दस्पर्शरूपरसगन्धशक्त्यात्मकाततः । संजातापृथिवीपंचदशशक्तिभिरन्विता ॥२६॥
 क्रमादेतान्पंचभूतकिरणानेवशास्त्रतः । पंचभूतानीतिसम्यक्प्रवदन्तिमनोषिणः ॥२७॥
 एतानिपंचभूतानिजगद्रूपक्षयकेवलम् । शुद्धबीजस्वरूपाणिप्रभवन्तिस्वभावतः ॥२८॥

॥ भूतशक्तिप्रभेदशक्तिसर्वस्वेनिरूपितः ॥

शब्दोक्ताशसूक्ष्मश्चव्यापकोदृश्यमेवच । अधिष्ठानंस्थिरोस्पर्शअग्राह्योमानइत्यपि ॥२९॥

is said to be the sound of Akasa. This sound being induced and aided by the Ikshana shakti and Srushti sankalpa shakti of Atman assumed the shape of the Universe. It is described by the learned in shastras as the Vivruta or Expanded Form of Brahman. By the combination of this Sound and Akasa, Vayu or air having two characteristic gunas of Sound and Touch and thirteen characteristic powers or qualities, came into existence. Then by the combination of the powers of sound and Touch of air, Agni or fire with three gunas, namely, sound, touch and form and with the eight characteristic powers, emanated. By the combination of the powers of the sound, touch and form thereupon, water which has the four gunas viz. sound touch, form and liquidity which is both visible and invisible in form, which is very pure by nature and which possesses the five inherent powers or qualities, evolved. Afterwards by the combination of the four gunas of water, earth with its five gunas viz: sound, touch, form, liquidity and smell and with the fifteen characteristic powers came into existence.

Thus the learned declare in shastras that the five Bhutakiranas or rays of Kasyapa are the five Bhutas or elements. In short it is to be noted that these five elements constitute the pure and primary seeds of the Tree of Universe. This is what Srushti vilasa says on the point.

Shakti Sarvaswa enumerates the characteristic powers of each of the five elements mentioned above and they are tabulated hereunder.

आकाशशक्त्यइतिदशैतेसंप्रकीर्तिताः । शब्दोवेगःकंपनश्चवर्षणोछेदनस्तथा ॥४०॥
 प्रसारणोप्राणनश्चप्रवाहश्शीतलस्तथा । द्रवोघनोष्णस्पर्शश्चैतेत्युर्वायुशक्तयः ॥४१॥
 उष्णश्शब्दस्पन्दनश्चरूपकान्तिश्शिखातथा । दाहकःपाचकश्चाग्नेश्शक्तयोष्टेतीरितः॥४२॥

I. The Shaktis of Akasa.

1. The Shakti of Sound,
2. „ „ Accommodation,
3. „ „ Subtlety,
4. „ „ Pervasion,
5. „ „ Invisibility,
6. „ „ Adhishtana or support,
7. „ „ Firmness or eternity,
8. „ „ Untouchability (beyond the sense of touch),
9. „ „ Incomprehensibility,
10. „ „ Immeasurability.

These are the ten characteristic powers of Akasa.

II. The characteristic Shaktis of Vayu or air are 13 and they are :—

1. The power of Sound,
2. „ „ Rapidity, impetuosity or force,
3. „ „ Shaking,
4. „ „ Friction,
5. „ „ Cutting,
6. „ „ Pervasion,
7. „ „ Vitality or life-giving energy,
8. „ „ Flowing in floods,
9. „ „ Coldness,
10. „ „ Fluidity,
11. „ „ Solidity,
12. „ „ Heat,
13. „ „ Touch.

These are the inherent powers of Air.

शब्दोरूपरसस्पर्शशीतोवेगः प्रवाहकः । वर्षणोजृम्भणोद्भेदनश्चेतिजलशक्तयः ॥४३॥

शब्दस्पर्शोरूपरसगन्धकाठिन्यमार्दवम् । आकर्षणोत्क्षेपणश्चविकासोवमनोचलः ॥४४॥

पोषकोनाशकोगालनश्चेत्यवनिशक्तयः ॥

॥ इत्यादि ॥

॥ एवमुक्तप्रकारेणविशेषार्थोस्यकीर्तितः ॥

III. The characteristic powers of Fire are 8 and they are :-

1. The power of Heat,
2. „ „ Sound,
3. „ „ Motion,
4. „ „ Form or shape,
5. „ „ Luminosity,
6. „ „ Flames,
7. „ „ Burning,
8. „ „ Cooking or ripening,

These are the natural powers of Fire.

IV. The characteristic powers of Water are :-

1. The power of Sound,
2. „ „ Form,
3. „ „ Liquidity,
4. „ „ Touch,
5. „ „ Coldness,
6. „ „ Rapidity,
7. „ „ Floods,
8. „ „ Friction,
9. „ „ Swelling or expansion,
10. „ „ Jumping.

These are the 10 characteristic powers of Water.

V. The inherent powers of Earth are 15 and they are:-

1. The power of Sound,
2. „ „ Liquidity,
3. „ „ Touch,
4. „ „ Form,
5. „ „ Odour,

॥ एवमारोगादयस्सप्तकिरणाः कश्यप- क्षिप्पगर्भयोस्संघर्षणात् ॥

॥ बो वृ ॥

पंचभूतोत्पत्तिमुक्त्वापूर्वसूत्रेयथाक्रमम् । अस्मिन्नारोगादिसप्तकिरणोत्पत्तिरुच्यते	॥१॥
पदानिपंचसूत्रेस्मिन्निर्णिगितानियथाक्रमम् । तत्रादिमपदात्पूर्वदृष्टान्तस्संप्रदर्शितः	॥२॥
आरोगादीनिनामानिद्वितीयपदस्मृतः । तृतीयपदतस्तद्वत्किरणास्सप्तईरिताः	॥३॥
कश्यपकिरणगर्भौचतुर्थपदतस्मृतौ । तथैवपंचमपदात्तत्संघर्षणईरितः	॥४॥
पदार्थमेवमुक्त्वास्यसंप्रदायानुसारतः । सामान्यार्थोद्यविधिवत्संग्रहेणनिरूप्यते	॥५॥

- | | | | |
|-----|---|---|------------------------|
| 6. | „ | „ | Hardness, |
| 7. | „ | „ | Wetting or drenching, |
| 8. | „ | „ | Attraction, |
| 9. | „ | „ | Tossing, |
| 10. | „ | „ | Expansion, |
| 11. | „ | „ | Vomiting or expelling, |
| 12. | „ | „ | Firmness or stability, |
| 13. | „ | „ | Nourishing, |
| 14. | „ | „ | Destroying, |
| 15. | „ | „ | Melting. |

These are the characteristic powers of the 5th element viz. the Earth.

Thus ends the explanatory and technical meaning of this aphorism.

APHORISM 46

Similarly by the combination of Kasyapa and Kiranagarbha, the seven rays such as Aroga emanated. This is the aphorism.

THE COMMENTARY.

The process of emanation of the five elements was given in the previous aphorism and the origin of the seven solar rays such as Aroga will be traced in this aphorism.

॥ सामान्यार्थः ॥

आरोगाद्यास्सप्तकिरणाः कश्यपस्य महात्मनः । पूर्वोक्तपञ्चभूतकिरणोत्पत्तिवत्कृमात् ॥६॥
 कश्यपादितिकिरणगर्भशक्त्योः परस्परम् । संघर्षणात्समुत्पन्नामण्डलाकारतस्त्वतः ॥७॥
 एतेषां नामधेयानियजुरारण्यकेकृमात् । प्रोक्तानि सप्तान्येव संगृह्यात्र विलिख्यते ॥८॥
 आरोगो भ्राजः पटरः पतंगस्त्वनरस्तथा । ज्योतिषीमान्विभासकश्चेतिसप्तयथाक्रमम् ॥९॥
 किरणाः कश्यपस्यैते सप्त सूर्या इतीरिताः । एतैरेव जगत्सृष्टिरिति शास्त्रविनिर्णयः ॥१०॥

This aphorism consists of five words. The first word gives the analogy of the order of emanation of the five elements. The second word mentions the names of the seven rays, Aroga and so on. The third word points out the seven rays. The fourth word refers to Kasyapa and Kiranagarbha of Aditi. The fifth word speaks of the friction of Kasyapa and Kiranagarbha of Aditi. This is what the words of the aphorism import and its purport now follows.

THE PURPORT OF THE APHORISM.

By the friction of Kasyapa and Kiranagarbha of Aditi, the seven rays such as Aroga and so on of the glorious Solar globe of Kasyapa emanated themselves in the form of globes or orbs. The names of these seven rays are given in the Yajuranyaka Sruti and they are:—1. Aroga, 2. Bhraja, 3. Patara, 4. Patanga, 5. Swarnara, 6. Jyotisheeman, 7. Vibhasaka.

The passages of sruti determine that these seven rays are the seven solar globes. Shastras further expound that the process of the entire creation of the Universe is to take place only by means of these seven Suns.

Thus ends the 46th aphorism.

॥ सूत्रम् ४७ ॥

॥ तच्छक्त्याकर्षणात्तदुभयप्रतिष्ठातस्मिन् ॥

॥ बो वृ ॥

सप्तसूर्योत्पत्तिमुक्त्वापूर्वसूत्रेयथाक्रमम् । अथास्मिन्तद्भूतसूर्यप्रतिष्ठासन्निरूप्यते ॥१॥

पदानित्रीणि सूत्रेस्मिन्निर्णिता नित्यथाविधि । तत्रादिमपदादुक्तं वातस्कंधापकर्षणम् ॥२॥

भूतसूर्यप्रयिष्ठोक्ताद्वितीयपदतस्तथा । तृतीयपदतो वातस्कंधस्सम्यङ्निर्दिशितः ॥३॥

पदार्थमेवमुक्त्वास्ययथावत्संप्रदायतः । सामान्यार्थोद्यविधिवत्संग्रहेणनिरूप्यते ॥४॥

॥ सामान्यार्थः ॥

पूर्वद्विचत्वारिंशतिकसूत्रेयत्प्रतिपादितम् । वातस्कंधोत्पत्तिरिति तच्छक्त्याकर्षणात्स्वतः ॥५॥

पूर्वोक्तपंचभूतानां सप्ताकाराणामतः परम् । प्रतिष्ठाभूत्क्रमात्तस्मिन्वातस्कंधे पृथक्पृथक् ॥६॥

सप्तचत्वारिंशतिकसूत्रस्यास्यविचारतः । एवमुक्तसंग्रहेण सामान्यार्थोयाथाविधि ॥७॥

APHORISM 47.

By the attraction of that power the establishment of both of them took place in it. This is the aphorism.

THE COMMENTARY.

The origin of the seven Suns was dealt with in the previous aphorism and the establishment or fixture of the said five bhutas or elements and of the seven Suns will be treated in this aphorism.

There are three words in this aphorism. The attraction of the Shakti of Vatasandha is pointed out by the first word. The establishment or fixture of the five bhutas or elements and of the seven Suns is named by the second word. The third word suggests Vatasandha. Having thus given the meaning of the words of the aphorism we shall now deal with its general sense.

THE GENERAL SENSE OF THE APHORISM.

By the attraction of the power of Vatasandha referred to in one of the previous aphorisms of this work, the fixture of the said five elements such as Akasa and of the seven Suns such as of Aroga took place in that Vatasandha without connection each with the other.

॥ सूत्रम् ४८ ॥

॥ अथाभवन्तदुभयशक्तिसंमेळनात्तस्मिन्नसंख्याकास्सृष्टिशक्तयःकूर्माद्याकश्यपान्तम् ॥

॥ बो वृ ॥

पूर्वसूत्रेपंचभूतसप्तसूर्यस्थितिस्मृता । क्रमाज्जगत्सृष्टिशक्त्युत्पत्तिरस्मिन्निरूप्यते ॥१॥
 पदानिसप्तसूत्रेस्मिन्निर्णितानियथाक्रमम् । तत्रादिमपदादानंतर्यार्थस्सन्निरूपितः ॥२॥
 द्वितीयपदतस्सम्यक्क्रियार्थस्सन्निर्दिशितः । तृतीयपदतश्शक्तिद्वयसंयोगईरितः ॥३॥
 पश्चाच्चतुर्थपदतोवातस्कंधोनिरूपितः । तथाचतुर्थपदतोसंख्याकत्वमुदीरितम् ॥४॥
 तथैवपंचमपदादसंख्याकत्वमीरितम् । कूर्मेणषष्ठमपदाच्छक्त्युत्पत्तिर्निर्दिशिता ॥५॥
 शक्तिस्थानंक्रमात्सप्तमपदेननिरूपितम् । पदार्थमेवमुक्त्वास्यसामान्यार्थोऽधुनोच्यते ॥६॥

APHORISM 48.

Afterwards by the combination of the two Shaktis countless creative forces emanated in that Vata-skandha from its Koormapitha up to Kasyapa Mandala.

THE COMMENTARY.

Having explained the situation of the five elements such as Akasa and of the seven Suns such as Aroga in the previous aphorism, we shall now deal with the creative forces for the propagation of the Universe in this aphorism.

There are seven words in this aphorism. The first word shows the context. The second word declares what happened next. The third word names the combination of the Shakti of Vata-skandha and of the Solar globe of Kasyapa. The fourth word refers to Vata-skandha. The fifth word is an adjective stating that the creative forces referred to in the next word are countless in number. The sixth word demonstrates the creative forces that came into existence. The seventh word gives the direction or locality where those forces emanated. This is the meaning of the words of the aphorism while its purport runs as follows.

॥ सामान्यार्थः ॥

पंचभूतानीतिपूर्वसप्तसूर्याइतिक्रमात् । येतुप्रोक्तास्तदुभयशक्त्योस्संमेळनात्स्वतः ॥६॥

कूर्मपीठसमारभ्यकश्यपान्तंयथाक्रमम् । वातस्कंधेअसंख्याकानानाचित्रविचित्रकाः ॥७॥

संबभूवुर्जगत्सृष्टिशक्त्यस्सर्वतोमुखाः । सूत्रस्यैवंसमासेनसामान्यार्थःप्रकीर्तितः ॥८॥

॥ सूत्रम् ४९ ॥

॥ तत्संमेळनाच्छक्तिपञ्जरम् ॥

॥ वो वृ ॥

पूर्वसूत्रेसृष्टिशक्त्युत्पत्तिमुक्त्वायथाक्रमम् । क्रमादस्मिन्नजगत्सृष्टिशक्तिपंजरमुच्यते ॥१॥

पदच्छेदनतत्सूत्रेपदद्वयमुदीरितम् । तत्रादिमपदाच्छक्तिपंमेळनमुदाहृतम् ॥२॥

द्वितीयपदतत्तद्वच्छक्तिपंजरमीरितम् । पदार्थमेवमुक्त्वास्वसामान्यार्थोन्निरूप्यते ॥३॥

THE PURPORT OF THE APHORISM.

By the combination of the two Shaktis of the said five elements such as Akasa and of the seven Suns such as Aroga, countless creative forces, which are very peculiar by nature, which are the primordial seeds of creation and which are all faced came into existence in that Vata-skandha from its Koorma-pitha up to its Kasyapa Mandala. This is the purport of the aphorism.

APHORISM 49.

By their combination Shakti Panjara came into existence. This is the aphorism.

THE COMMENTARY.

The origin of the creative forces was traced in the previous aphorism. Shakti Panjara which came into existence for the proper conduct of creation will be described in this aphorism.

There are two words in this aphorism. Combination of the Shaktis is pointed out by the first word and Shakti Panjara (which is the result of the said combination) is named by the second word. Having given the meaning of the words of the aphorism we shall deal with the general sense of the aphorism.

॥ सामान्यार्थः ॥

पूर्वोक्तसृष्टिशक्तीनामनुलोमविलोमतः । अन्योन्यमेळनात्सृष्टिशक्तिपंजरमुद्भवौ ॥४॥
 एतज्जगत्सृष्टिशक्तिपंजगेत्वत्तिर्निर्णयः । पराशरेणमुनिनाविस्तरेणयः सक्रमम् ॥५॥
 अण्डकौस्तुभशास्त्रेसप्रमाणात्परिकीर्तितम् । तत्रस्थितान्कतिपयान्पञ्जरोत्पत्तिबोधकान् ॥६॥
 प्रकृतोपयुक्तश्लोकान्संगृह्यात्रयथाक्रमम् । *बालानांसुखबोधाययथामतिनिहृष्यते ॥७॥

॥ अण्डकौस्तुभे नवमाध्याये पराशरः ॥

वियत्पवनतेजोबुभुवनानीतिशास्त्रतः । नामानिपंचभूतानांपंचधाकीर्तितानिहि ॥८॥
 तथैवसप्तसूर्याणांसप्तनामान्यपिक्रमात् । आरोगोभ्राजःपटरःपतंगस्त्वर्णरस्तुथा ॥९॥
 ज्योतिषीमान्विभासश्चेत्युक्तानिश्रुतिवाक्यतः । एतेषुसप्तार्कपंचभूतेषुविविधाःक्रमात् ॥१०॥
 वर्तन्तेशक्त्योनन्तास्सृष्टेर्वीजस्वरूपकाः । यास्तासुसृष्ट्युपयुक्तशक्तयस्सन्तिमुख्यतः ॥११॥

THE GENERAL SENSE OF THE APHORISM.

By the intercourse of the said creative forces in opposite circles, Shakti Panjara which conducts the work of creation came into existence as a result of that combination.

There are several things to be explained here. Fearing the space they occupy we shall cut them short and deal with only a few essential points according to Maharshi Parasara, who describes the said Shakti Panjara in a vivid and authoritative manner in his work, Anda Kaustubha. From that Shastra we shall extract a few verses, which deal with the Shakti Panjara and which are necessary here and explain their purport for enabling children to understand their meaning.

In the ninth chapter of Anda Kaustubha, Maharshi Parasara says as follows:—

In Shastras five different names of the five elements are given and they are Akasa, (Ether), Vayu or air, Agni or fire, Ambu or water and Bhuvana or earth. Similarly the names of the seven Suns are also given in accordance with the Sruti and they are Aroga, Bhraja, Patara, Patanga, Swarnara, Jyotisheeman and Vibhasaka. These five elements and the seven Suns contain within themselves various and variegated forces which

तासांसंख्यात्रविधिद्वाल्मीकिगणितक्रमात् । वारंवारंसमन्वीक्ष्ययथामातिनिरूप्यते ॥१२॥
 सागराणांपंचदशस्र्वाणांसप्तविंशतिः । न्यर्बुदानांपंचविंशद्वर्बुदानांचषोडश ॥१३॥
 कोटीनांपंचत्वारिंशलक्षणांद्विसप्ततिः । सहस्राणांद्विपंचाशच्छतानांनवचक्रमात् ॥१४॥
 पूर्वोक्तपंचभूतेषुएकैकसिन्यथाक्रमम् । स्वभावेनैववर्तन्तेअविनाभावतःक्रमात् ॥१५॥
 पूर्वोक्तारोगादिसप्तसूर्येषुचस्वभावतः । प्रपंचसृष्ट्युपयुक्तशक्तयस्सन्तियाःक्रमात् ॥१६॥
 तासांसंख्यात्रविधित्सम्यगन्वीक्ष्यकीर्त्यते । महापद्मसहस्राणिमहाक्षोणीशतंतथा ॥१७॥
 क्रमान्महासागराणामष्टाशीतिस्ततःपरम् । सागराणांपंचविंशन्महास्वर्शतंतथा ॥१८॥
 सर्वाणामष्टपंचाशन्न्यर्बुदानांत्रयोदश । अर्बुदानामष्टषष्टिःकोटीनामेकविंशतिः ॥१९॥
 लक्षणांपंचचत्वारिसहस्राणांदशक्रमात् । पञ्चाच्छताष्टकमितिवाल्मीकिगणितात्स्मृतम् ॥
 एतत्संख्यानुसारेणसप्तसूर्येषुचक्रमात् । एकैकसिन्स्वभावेनवर्तन्तेसृष्टिशक्तयः ॥२०॥

are in the form of seeds of the creation of the Universe. Out of these countless Shaktis there are some which are of primary importance for creation. The number of such principal forces will be given here according to the mathematical calculations by Valmiki which we consulted several times very carefully. And that number is found to be this: Fifteen Sagaras, twenty-seven Kharvas, twenty-five Nyarbudas, sixteen Arbudas, forty-five crores, seventy-two lakhs, fifty-two thousand and nine hundred. It is said that in each of the said five elements the above number of Shaktis are inherently and inseparably present. Similarly the number of the principal forces of creation of the Universe which are naturally present in each of the said seven Suns will also be given here, after minutely calculating the same in accordance with the said mathematics. And that number is this: One thousand Maha Padmas, one hundred Maha Kshonis, eighty-eight. Maha Sagaras, twenty-five Sagaras, one hundred Maha Kharvas, fifty-eight Kharvas, thirteen Nyarbudas, sixty-eight Arbudas, twenty-one crores, forty-five lakhs, ten thousand and eight hundred. It is said that in each of the said seven Suns the above number of principal creative forces are naturally present. By the combination of the creative forces of these

अन्योक्तमयशक्त्योस्समैलनात्परस्परम् । संजातोभूत्स्वभावेनशक्तिपंजरमद्भूतम् ॥२२॥
 पश्चात्तस्मिन्कूमाज्जगत्सृष्ट्यर्थमीश्वराज्ञया । संजातानिषडंगानिकूर्माद्याकश्यपावधि ॥२३॥
 तेषांशास्त्रोक्तनामानिविलिख्यन्तेयथाक्रमम् । कूर्मवातस्कंधशेषदिग्गजादितिकश्यपाः ॥२४॥
 षडैतैगानीतिशास्त्रेपंजरस्ववदन्तिहि । तेषुप्रकाशगर्भास्युःदिग्गजादितिकश्यपाः ॥२५॥
 कूर्मवातस्कंधशेषास्तमोगर्भाइतीरिताः । पूर्वोक्तोर्ध्वकपालार्कषणेनाथातिवंगतः ॥२६॥
 स्वयमूर्ध्वमुखाभूत्वातेजोगर्भास्वभावतः । मध्यकेंद्रादूर्ध्वकेंद्रगर्भान्तंव्यापिताःक्रमात् ॥२७॥
 एवमेवाधःकपालार्कषणेनस्वभावतः । अयोमुखास्त्वतोभूत्वा तमोगर्भाश्चवंगतः ॥२८॥
 मध्यकेंद्रादधःकेंद्रगर्भान्तंव्यापिताःक्रमात् । मध्यकेंद्रादूर्ध्वकेंद्रपर्यन्तंपंजरैक्रमात् ॥२९॥

five elements and of the seven Suns the wonderful Shakti Panjara came into existence.

For the propagation of the Universe thereupon six different Angas or limbs also came into existence from Koorma Pitha up to Kasyapa Mandala in order, in accordance with the will of the Lord Almighty. The names of these limbs or parts are given in the Shastras in order and they are Kōorma, Vata-skandha, Sesha, Diggaja, Aditi and Kasyapa. These are said to be in Shastras the six parts of Shakti Panjara. Of these six parts the three viz., Diggaja, Aditi and Kasyapa are said to be bright in nature while the other three viz., Koorma, Vata-skandha and Sesha are said to be dark in nature.

By the attraction of the aforesaid upper half of Brahmanda thereupon, the Shaktis of Prakasha Garbha rose above of their own accord naturally and spread forcibly from Madhya or middle Kendra to Oordhva Kendra Garbha, in order. Similarly the Tamo Garbha Shaktis being attracted by the Lower half of Brahmanda went down and spread forcibly from Madhya or middle Kendra to the lower Kendra Garbha. The seven Suns such as Aroga include all the forces that spread from the middle Kendra up to the upper Kendra of the Shakti Panjara in order and remain in their respective places. In the same way the five elements also include all

आरोगाद्यास्ससूर्यावर्तन्तेशक्तिभिस्सह । तथैवतन्मध्यकेंद्रादधस्सीमावधिक्रमात् ॥३०॥
 पंचभूतानिर्वर्तन्तेतच्छक्तिभिस्सहस्यतः । अथादौनडप्रपंचस्वसृष्ट्यर्थजगदीश्वरः ॥३१॥
 संगृह्यपंचभूताग्निशक्तिभिस्सहितानिहि । आकाशादिक्रमात्पंचीकृत्यपश्चात्स्वशक्तिः ॥
 एतत्पंचीकृतमहाभूतैस्तच्छक्तिपंजरे । अवासृजज्जडमिदंप्रपंचं सर्वतोमुखम् ॥३२॥
 ॥ इति ॥

॥ सूत्रम् ५० ॥

॥ सृष्टिस्सूर्यकिरणेभ्यश्चिच्चैत्यविभागेन ॥

॥ बो वृ ॥

पूर्वसूत्रेपंजरोत्पत्तिमुक्त्वायथाक्रमम् । अस्मिन्चिच्चैत्यभेदेनजगत्सृष्टिरुदीर्यते ॥ १ ॥
 पदानित्रीणीसूत्रेस्मिन्निर्णितानियथाविधि । तत्रादिमपदात्सृष्टिर्जगत्संप्रदर्शितः ॥ २ ॥
 द्वितीयपदतस्सूर्यकिरणास्सन्निरूपिताः । सूर्यांशुशक्तिप्रभेदस्तृतीयपदतस्समृतः ॥ ३ ॥
 पदार्थमेवमुक्त्वात्यसंप्रदायानुसारतः । अथेदानींसमासेनसामान्यार्थोऽधुनोच्यते ॥ ४ ॥

the downward forces that spread from the middle Kendra up to the lower Kendra and remain in their respective places Thereupon the Lord of the Universe. thought of creating the inert Universe first and for this purpose He took up the five elements, broke up each of them into five divisions and by means of the elements thus divided He created the entire moveable and immovable Universe within that Shakti Panjara, by the help of His own Maya Shakti.

Thus ends the 49th aphorism.

APHORISM 50.

Creation takes place by means of solar rays of the two kinds viz., Chit and Chaitya.

THE COMMENTARY.

In the previous aphorism how Shakti Panjara emanated was described and in this aphorism how by means of the two Shaktis viz., Chit and Chaitya creation takes place will be dealt with.

॥ सामान्यार्थः ॥

पूर्वोक्तारोगादिसूर्यकिरणेषु स्वभावतः । शक्तयस्सन्ति चैतन्यप्रभेदेन द्विधा क्रमात् ॥ ९ ॥
 ऊर्ध्वध्रुवाकर्षणेन शक्तयो तास्त्वभावतः । तिष्ठन्त्यूर्ध्वमुखास्तासु चिच्छक्तय इतीरिताः ॥ १० ॥
 पूर्वध्रुवाकर्षणेन वर्तन्ते यास्त्वथोमुखाः । ताश्चैत्यशक्तय इति प्रवदन्ति मनीषिणः ॥ ११ ॥
 आश्रित्य पञ्चभूतानि वर्तन्ते चैत्यशक्तयः । चिच्छक्तयस्तयोरात्मशक्तिमाश्रित्य केवलम् ॥ १२ ॥
 वर्तन्ते सृष्टिकार्यमिति शास्त्रविनिर्णयः । याः पञ्चभूतान्याश्रित्य वर्तन्ते शक्तयः क्रमात् ॥ १३ ॥
 जडशक्तय इत्युक्ता दशास्त्रेषु ज्ञानवित्तमैः । आत्मशक्तिसमाश्रित्य वर्तन्ते यास्त्वभावतः ॥ १४ ॥
 चैतन्यशक्तय इति प्रवदन्ति मनीषिणः । अथ सृष्टिकर्तुं कामस्त्वसंक्लृपानुसारतः ॥ १५ ॥
 क्रमात्तत्पञ्चभूतानि समाहृत्य महेश्वरः । सृष्ट्यर्थमभजद्देवा आकाशादिक्रमात्स्वयम् ॥ १६ ॥

This aphorism is divided into three words. Creation of the Universe is pointed out by the first word ; Solar rays by the second word and the different Shaktis of the Solar rays by the third word. Having thus given the meaning of the words of the aphorism we shall now explain its purport briefly.

THE PURPORT OF THE APHORISM.

The Shaktis of the rays of the seven Suns mentioned above are by nature of two kinds viz., Chit and Chaitya. Of these two kinds those Shaktis which, by the attraction of upper Dhruva, are naturally facing upwards, are said to be Chit Shaktis. On the other hand those Shaktis which by the attraction of the lower Dhruva are naturally facing downwards, are said to be Chaitya Shaktis by the learned. Of these Chit and Chaitya Shaktis, the existence of the latter is dependent upon the five elements, while the former viz., the Chit Shaktis depend upon the Solar rays for their existence and are solely meant for the propagation of the Universe. Further those Shaktis which are dependent upon the five elements for their existence are said to be Jada or inert Shaktis by the wise. On the other hand those Shaktis which exist under the influence of Atma Shakti in the solar rays, are said to be by the learned 'Chaitya Shaktis'.

तयोर्भूतविभागांशान्सन्निधायपृथक्पृथक् । अन्विष्टार्धभागांशेष्वेकैकांशमतःपरम् ॥१३॥
 आकाशादिक्रमेणायचतुर्धाविभजत्पुनः । विभाजितेषुतत्पञ्चभूतांशेषुयथाक्रमम् ॥१४॥
 एकैकभागमादायसृष्ट्यर्थंजगदीश्वरः । निक्षिप्तभूतार्धभागेष्वेकैकस्मिन्नियोजयत् ॥१५॥
 तेनपञ्चीकृतानिस्युःपञ्चभूतानिपञ्चधा । एतत्पञ्चीकृतमहाभूतशक्तीस्तथैवच ॥१६॥
 सप्तसूर्यस्थात्मचेतन्यशक्तिश्चततःपरम् । परस्परंमेळयित्वास्वमायाशक्तितःक्रमात् ॥१७॥
 जडस्वरूपमखिलंजगदतन्महत्तरम् । यथासंकल्पितंपूर्वंनिर्ममेभगवान्तथा ॥१८॥
 अचलत्वाज्जडत्वाच्चप्रपञ्चस्यमनागपि । व्यवहारक्षमत्वंचचेतनत्वमपिस्त्वतः ॥१९॥
 नाभूत्तस्मात्स्वयंपश्चात्परमात्मानिरंजनः । तथाविधंजगद्दृष्ट्वासमालोच्यविशेषतः ॥२०॥

Thereupon Parameswara desirous of creating the Universe pursuant to His volition attracted the five elements in the order of Akasa for the purpose of conducting the process of creation and divided each of them into two halves. Keeping the first halves of each of these elements, He divided each of the other halves into four parts (so that each of these divided parts was one-eighth of the whole element). For the propagation of the Universe He then picked up the first half of each element in turn and added to it the four $\frac{1}{8}$ parts of the rest of the elements other than that particular half element. By this the five elements are said to have undergone the process known as Panchee Karana. In other words, by the addition of the four $\frac{1}{8}$ parts of the four elements to the half of a particular element other than the $\frac{1}{8}$ part of that particular half element) each element becomes one whole i.e., $\frac{1}{2} + 4(\frac{1}{8})$ parts. Thus each of these five elements which includes a fraction of all the elements other than that particular element is said to be a mixed element, each being a mixture of all the five elements. Thereupon the Lord Almighty by combining the Shaktis of the five elements which had undergone the process of Panchee Karana and the Atma Chaitanya Shaktis or the functioning forces of Atman, created this vast Universe pursuant to His former volition.

The Universe thus created on account of its being motionless and inert or ignorant had in itself neither the capacity of

चैतन्यत्वंव्यवहारयोग्यत्वंचक्रमेणहि । प्रदातुंजगत्सूर्यकिरणांतर्गतांपुनः ॥२१॥
 स्वस्यसंस्मृत्यविच्छर्कितांसमाहृत्यतेजसा । तस्मिन्जडप्रपंचेयसंददेशीघ्नतःक्रमात् ॥२२॥
 तस्माज्जडप्रपंचोयंचैतन्यत्वमतःपरम् । व्यवहारक्षमत्वंचतत्सणादगमत्स्वतः ॥२३॥
 इत्यंशुबोधिनीशास्त्रस्याध्यायेप्रथमेक्रमत् । सूर्यस्याधिष्ठानसिद्धिमात्मसंसिद्धिमेवच ॥२४॥
 जगत्सृष्ट्यधिकारत्वसंसिद्धिश्चाप्यथाविधि । श्रुतिमानानुसारेणसुविचार्यविनिश्चितम् ॥२५॥
 इत्येतत्प्रथमाध्यायसंग्रहार्थोनिरूपितः । तस्मात्सृष्ट्यधिकारत्वंसूर्यस्येवेतिनिर्णितम् ॥२६॥
 इत्यंशुबोधिनीशास्त्रेभरद्वाजकृतेक्रमात् । समाप्तिमगत्प्रथमाध्यायश्श्रुतिपोषितः ॥२७॥

functioning nor of being active. The Paramatman who is beyond Maya therefore looked at such a Universe and thinking deeply to render it active and capable of proper function and for this purpose recollecting His Chit Shakti present in the solar rays, attracted it by His glory and mixed it in that inert Universe. By this the Universe was replete with the quality of activity as well as of the capacity of functioning of its own accord.

Thus in the first Chapter of this Amsu Bodhini Shastra it has been proved, on the authority of the Shruti, that the Sun is Adhishtana or support (of the Universe), that he is identical with the Atman and that he is the creator of the Universe. This is the gist of the first Chapter. It has therefore been established that the management of the function of creation pertains to the Sun himself. Thus ends the first Chapter (which is authorized by the sentences of the Shruti) of Amsu Bodhini composed by Bharadwaja.

End of the First Chapter.

शुद्धाशुद्ध पत्रिका

Page.	Line	For	Read
1	4	भारद्वाजः	भरद्वाजः
2	6	कारणशक्तिभिरेव	कारणसृष्टिबीज किरणशक्तिभिरेव
8	8	सांकेतिक	सांकेत
9	6	पराशक्त्या	पराशक्त्या
9a	10	disclosed out	disclosed
9b	1	चतुर्गु	चतुर्थ
„	7	अकल्पयत्सृष्टि	अकल्पयत्सृष्टि
„	9	s in the	is in the
9e	15	only in the	only in the case of
„	17	case of above	above
9f	16	Sruti as that	sruti that
10	4	वृत्तः	वृत्तिः
11	13	subjecting himself to the Maya	} with Maya
„	30	affected by	
12	17	Recognize the same	Recognize in the same
13	1	स्वतस्मिद्धात्म	स्वतस्मिद्धात्म
13	22	on account of being affected by upadhi	} with upadhi
13	23	on account of being unaffected by it	
14	8	Subjecting himself to	with
„	34	it is subjected to	it gets with
16	4	यदात्मेति	यवाप्नोति
17	2	द्वितीय	द्वितीय

Page.	Line	For	Read
25	21	7th aphorism	7th axiom
33	2	तस्याद्वीपवत्	नस्याद्वीपवत्
34	3	उक्षेपणेन	उत्क्षेपणेन
44	19	explored	exposed
53	2	गर्भप्रवेशोन्तः	गर्भप्रवेशः
54	24	Antah prakasa	prakasa
55		After the third line insert,	तिष्ठन्तितेषु ध्वान्तादि ति शक्तीस्संस्थो- जयेत् क्रमात् ।
56	2	विशति	विंशतिश्च
59	10	guns	gunas
60	25	commentry	commentary
61	2	भ्रमणवेगा	भ्रमवेगा
62	11	maturity vega	maturity of the vega
67	5	प्रवदन्ति	प्रवदन्ति
68	25	referred to of by	referred to by
69	8	यथोक्तं	यथोक्तं
78	1	तावत्प्रमाणं	तावत्प्रमाण
78	3	omit रक्तसुंडालकृष्णादिगरलद्रावकेन च ।	
79	5	ताद्रावकेन	तद्द्रावकेन
81		After the 5th line insert	तद्वच्छायामुखादर्शादिमरेखांकनामुखं
„	6	संभ्रामयेद्यथा	संभ्रामयेत्तथा
„	24	unequal degrees	unequal strength
„	„	is attracted	should be attracted
83	20	sugesled	suggested
84	5	विज्ञानपारदैः	विज्ञानपारगैः
87		After the 5th line insert	तस्मात्पञ्चस्वतस्सिद्धन्यायमानानुसारतः
91	8	अजन्यत्वद्वि	अजन्यत्वाद्वि
„	10	tha	that

Page.	Line	For	Read
91	11	denote	denotes
„	12	is no	is not
92	8	स्थितिः	स्थितः
94	2	त्वंरजस्तमो	सत्त्वंरजस्तमो
96	4	तूर्वसूत्रे	पूर्वसूत्रे
„	12	omit consequently	
97	1	अमणत्व	भ्रमणत्व
„	2	अएवं	एवं
99	13	appears	appear
105	7	Read तत्र विशेषप्रकाश विशिष्टा सूर्यादयः । सामान्यप्रकाशविशिष्ट दर्पणादयः ।	
106	33	firts	first
107		At the end of the 3 rd line insert	रंजिकादावादित्यत्र ।
111	5	पकाशोधिक्य	प्रकाशाधिक्य
112	10	अंशोनामंगइत्याहु	अंशोनामंगमित्याहु
115	6	तस्मात्त्युत्तर	तस्मात्त्युत्तर
„	7	निरंक्त्युवाच	निरंशत्वाच्च
116	9	न्ययमानं	न्यायमानं
117	3	पदान्यस्मि	पदान्यस्मि
„	29	formation an aggregate	formation of an aggregate
118	4	तथाहिगतिः	तथाहिव्याप्तिः
„	17	reply	replying
120	1	गुणतश्चैव	गुणतश्चैक
126	1	रूपयोध्वान्त	रूपयोध्वान्तं
128	6	स्वरूपतः	स्वरूपयोः
132	7	रेखाप्रबोधक	रेखापथप्रबोधक
141	10	चतुःक्रमात्	चत्वार्यथाविधि
146	7	स्त्रैकांश	स्त्र्यैकांश

Page.	Line	For	Read
147	2	पंचदशात्मकः	पंचदशकोट्यात्मकः
„	4	ब्रह्माण्डस्थच	ब्रह्माण्डस्थाय
154	6	गर्भान्माविद्यु .	गर्भान्महाविद्यु
155	9	तत्प्रत्यभासः	तत्रत्यभासः
158	2	भेदनावधि	भेदनावधि
158	4	तथैववर्तुलाकारं	यथैववर्तुलाकारं
160	3	सृष्ट्यर्थ	तन्मध्ये
167	3	ददितिरिति	ददितिरिति
168	5	शक्तिगर्भा	सृष्टिगर्भा
„	„	तद्गर्भानां	तद्गर्भाणां
170	9	तस्मिन्नेव	तस्मिन्नेव
171	9	स्वप्रकाशांशो	त्यप्रकाशांशो
173	7	शब्दोवकाशसूक्ष्म	शब्दोवकाशसूक्ष्म
176	1	३६	४६
182	1	तथानाति	यथामति
